DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

Board of Directors

Meeting of the
Environmental Quality and Sewerage Services Committee

5000 Overlook Avenue, SW, Room 407
Thursday, November 19, 2015
9:30 a.m.

I. Call to Order — James Patteson, Chairperson

9:30 a.m. II. AWTP Status Updates — Aklile Tesfaye

1. BPAWTP Performance

9:35 a.m. III. Status Updates: Potomac Interceptor Sewer — Liliana Maldonado

1. Odor Abatement Project

9:40 a.m. IV. Action Items – Joint Use — Dan Bae/Len Benson

1. Contract No. WAS-12-063-AA-RA, Allied Barton Security Services
2. Contract No. GS11T08BJD6001, Verizon
3. Contract No. 15-PR-DMS-45, Lakeside Equipment Company
4. Contract No. WAS-10-047-AA-JH-, Alpine Trading Company, Inc.
5. Contract No. IFB No. 150120 – Compliance EnviroSystems, LLC
6. Contract No. DCFA #449 – AECOM Services of DC

9:50 a.m. V. CIP Quarterly Report — Liliana Maldonado

9:55 a.m. VI. Other Business/Emerging Issues

Adjournment — James Patteson

* The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10);proprietary matters under D.C. Official Code § 2-575(b)(11); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.

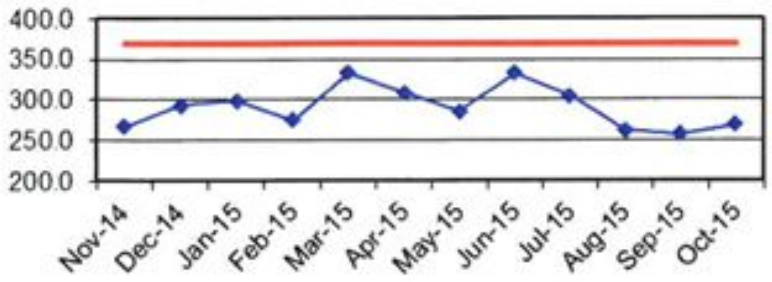
Follow-up Items from Prior Meetings:

1. Consider revisions to the Total Blue Plains Energy Usage to also show the CHP energy output. *{Completed as part of November Committee Meeting update}*
2. Correct Procurement Department fact sheets format prior to the November Board meeting to show the current's sub-contractor's status (MBE, WBE, LSBE, CBE, None), as applicable and for all future fact sheets originating from this department. *{Completed as part of November Committee Meeting agenda items}*
3. Provide the list of tasks under the Blue Horizon Goal 8 initiatives prior to the November Board retreat so the Committee can better understand the objectives, progress and accomplishments to date. *{to be addressed as part of Board Retreat preparation materials}*
4. For future updates, show the correlation between specific contracts and the initiatives and objectives outlined in the strategic plan. *{to be addressed in future Strategic Plan updates}*

DEPARTMENT OF WASTEWATER TREATMENT
October 2015

Average plant performance for the month was excellent with all effluent parameters well below the seven-day and monthly NPDES permit requirements. The monthly average influent flow was 269 MGD. There was 24 MG of Excess Flow during this reporting period. The following Figures compare the plant performance with the corresponding NPDES permit

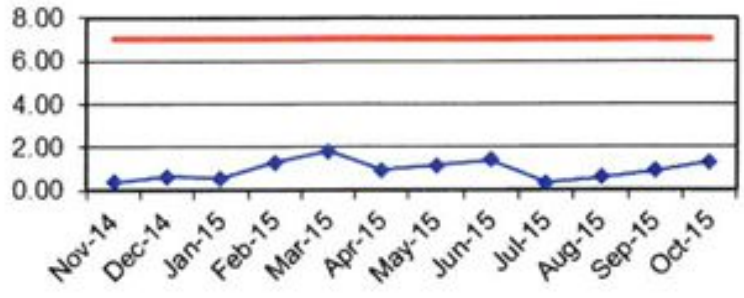
Plant Influent Flow (mgd)



Influent Flow — **Average Design Capacity**

This graph illustrates the monthly average influent flow to the plant. The design average flow is 370 MGD. Blue Plains has a revised 4-hour peak flow capacity of 511 MGD through complete treatment. Flows up to 336 MGD in excess of the 511 MGD peak capacity receive primary treatment, disinfection and dechlorination.

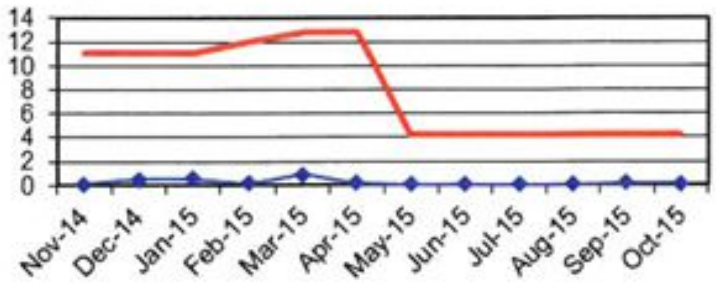
TSS (mg/l)



Effluent TSS — **Permit Limit**

Effluent Total Suspended Solids (TSS) is a measure of the amount of solid material that remains suspended after treatment. The effluent TSS concentration for the month averaged 1.32 mg/L, which is below the 7.0 mg/L permit limit.

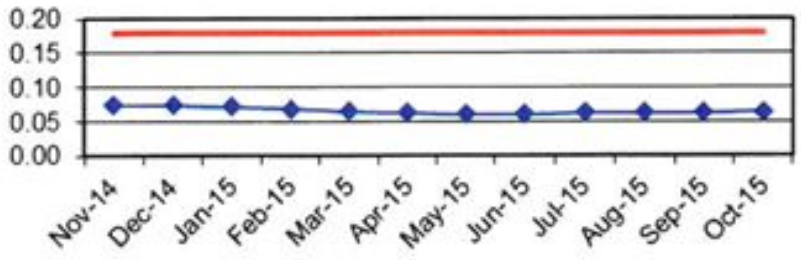
Ammonia (mg/l)



Effluent NH3 — **Permit Limit**

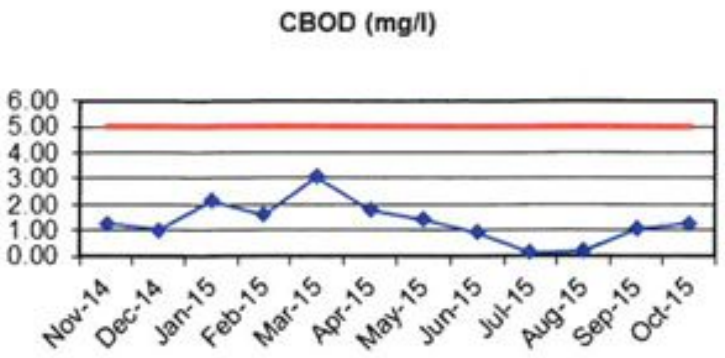
The Ammonia Nitrogen (NH3-N) is a measure of the nitrogen found in ammonia. For the month, effluent NH3-N concentration averaged 0.15 mg/L and is below the average 4.2 mg/L limit.

Total Phosphorus Annual Average (mg/l)

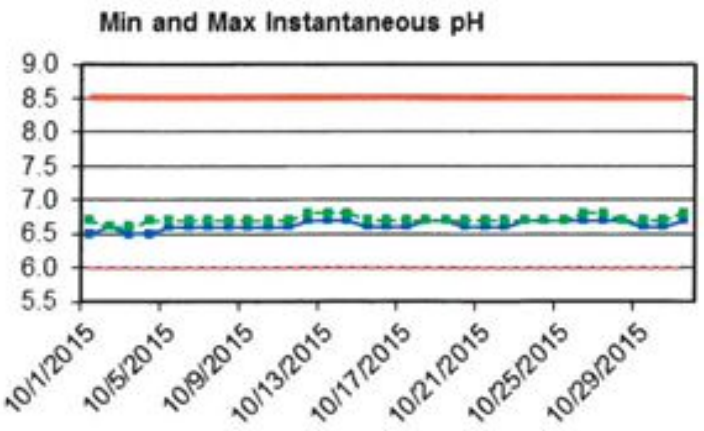


Effluent TP — **Permit Limit**

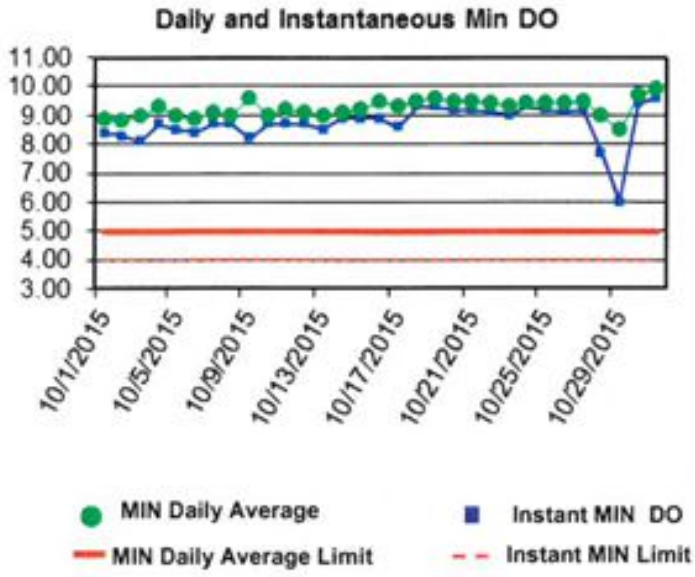
The Total Phosphorus (TP) is a measure of the particulate and dissolved phosphorus in the effluent. The annual average effluent TP concentration is 0.06 mg/L, which is below the 0.18 mg/L annual average limit.



Carbonaceous Biochemical Oxygen Demand (CBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials. The effluent CBOD concentration averaged 1.26 mg/L (partial month) which is below the 5.0 mg/L limit.

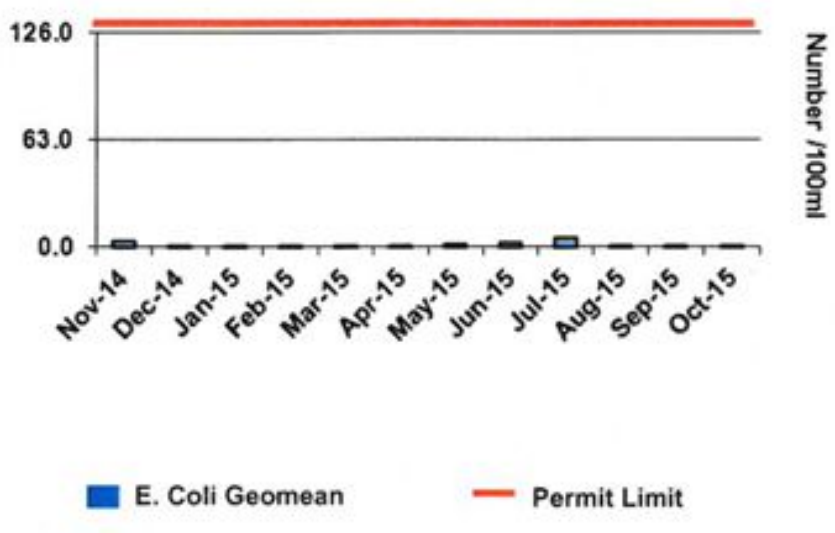


pH is a measure of the intensity of the alkalinity or acidity of the effluent. The minimum and maximum pH observed were 6.5 and 6.8 standard units respectively. The pH was within the permit limits of 6.0 and 8.5 for minimum and maximum respectively.



Dissolved Oxygen (DO) is a measure of the atmospheric oxygen dissolved in wastewater. The DO readings for the month are within the permit limits. The minimum daily average is 8.5 mg/L. The minimum instantaneous DO reading is 6.0 mg/L. The minimum permit limits are 5.0 mg/L and 4.0 mg/L respectively.

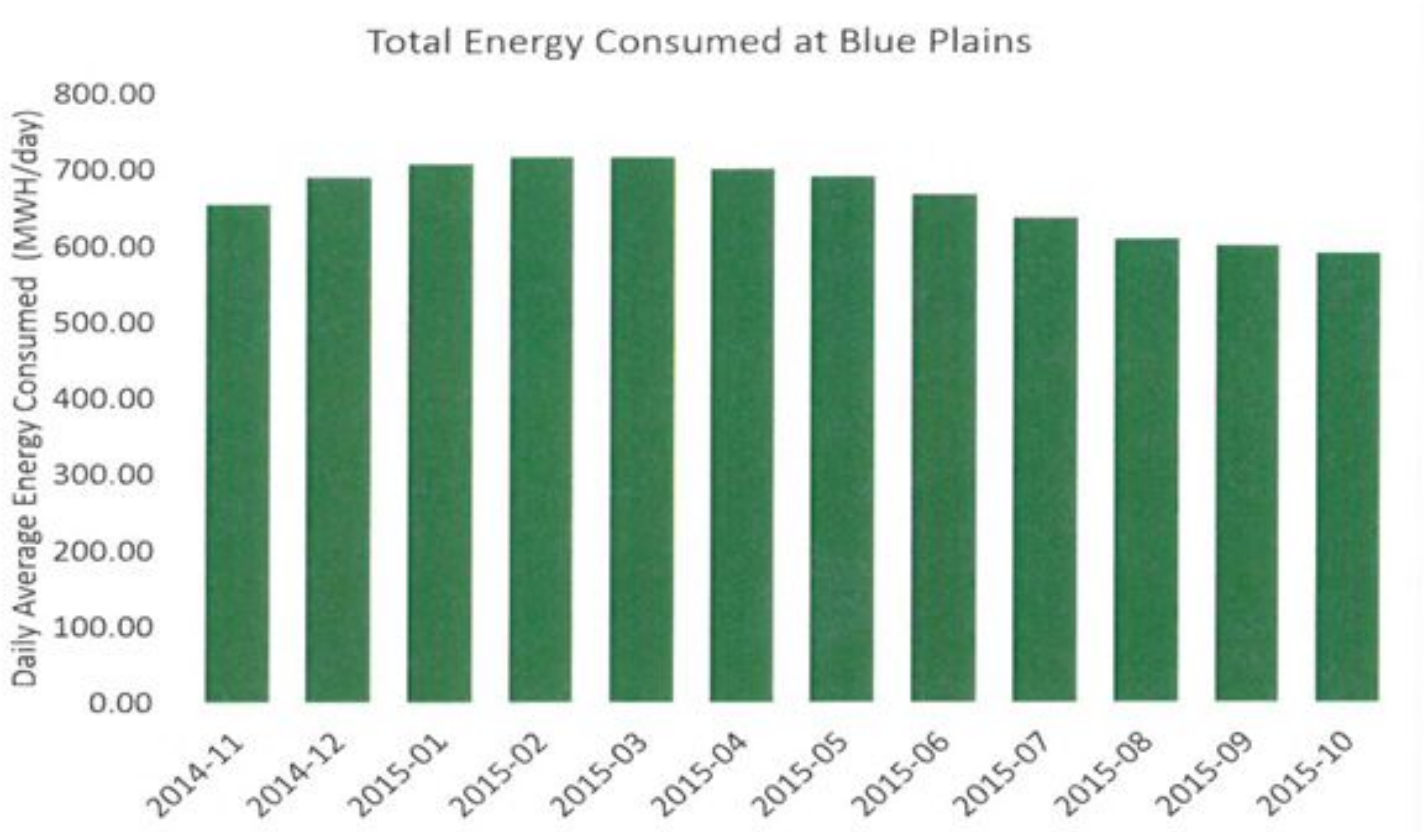
E. coli

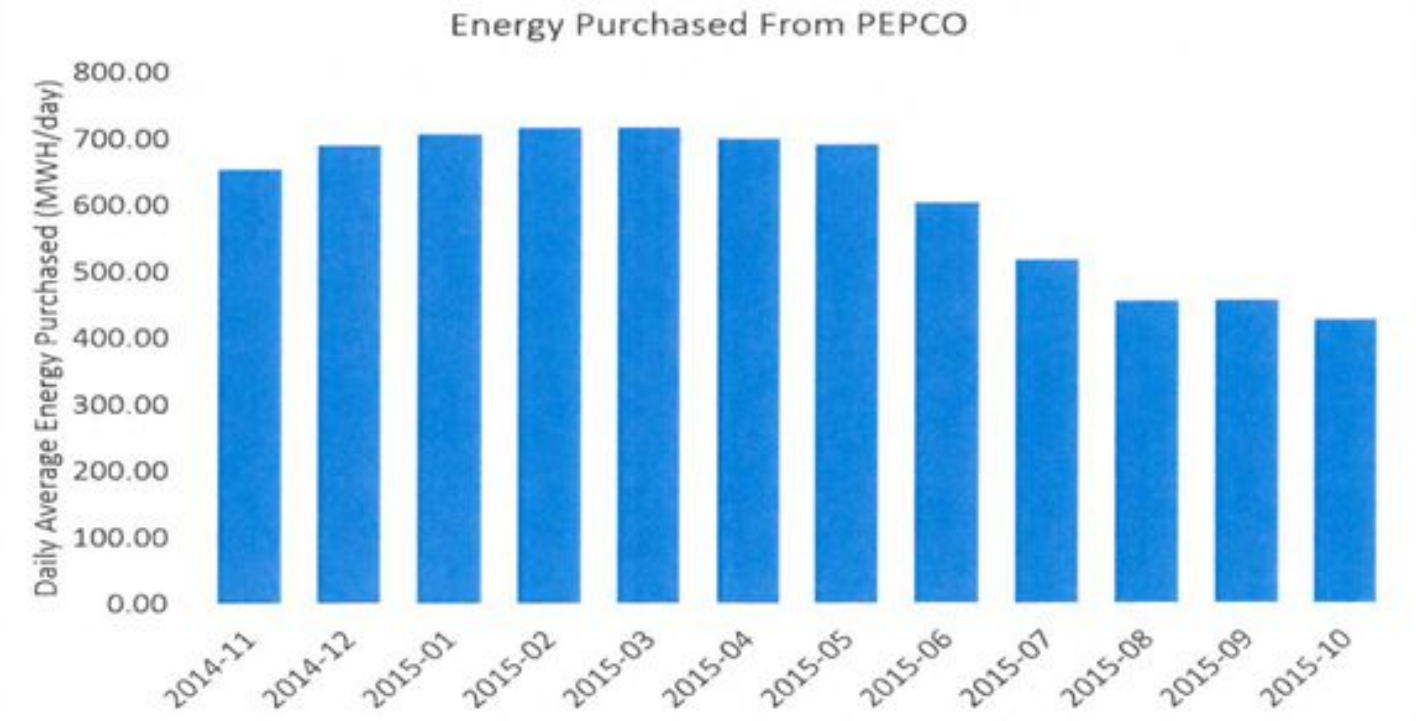


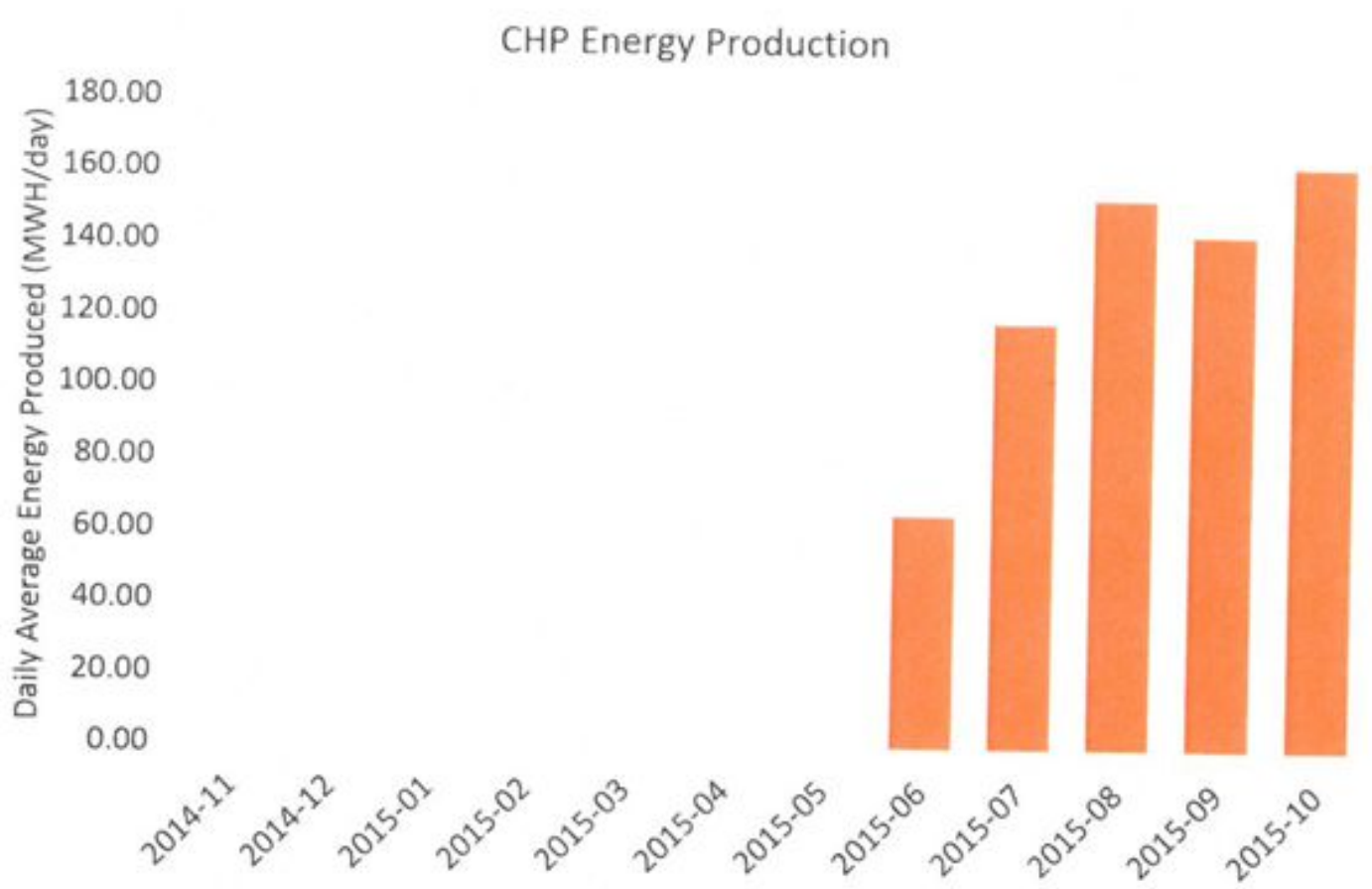
E.coli is an indicator of disease causing organisms (pathogens). The E.coli permit limit is 126/100mL. The E coli geometric mean is 1.1/100mL, and well below the permit limit.

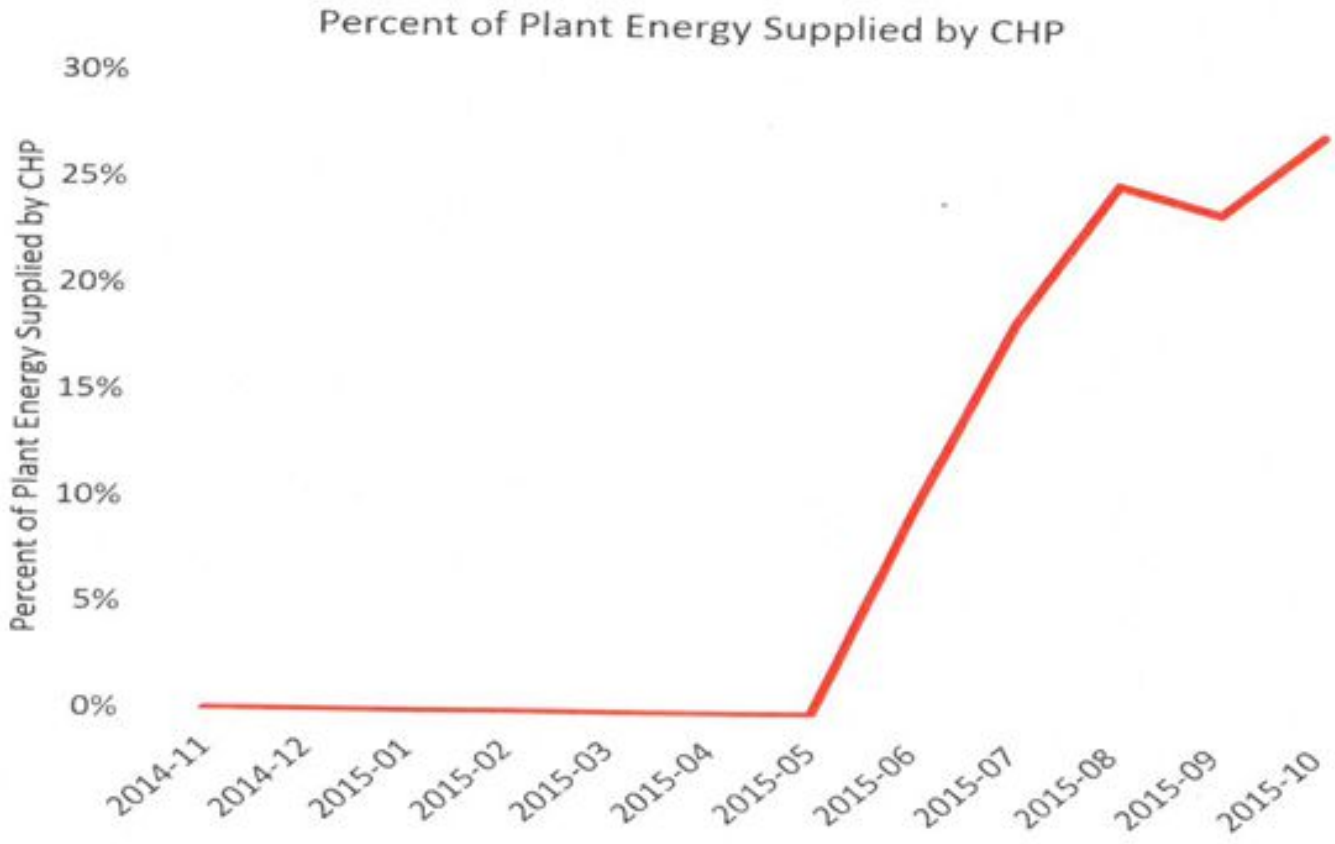
BLUE PLAINS ELECTRICITY USAGE

Blue Plains AWWTP has installed Power Monitors at critical points within the power distribution system to monitor power usage. The graph below is based on the installed power monitors and reflects grid power purchased at Blue Plains. As new processes are brought on line, the plant power requirements have increased. As CHP power is fed into the system, the net power purchased from the grid has decreased.



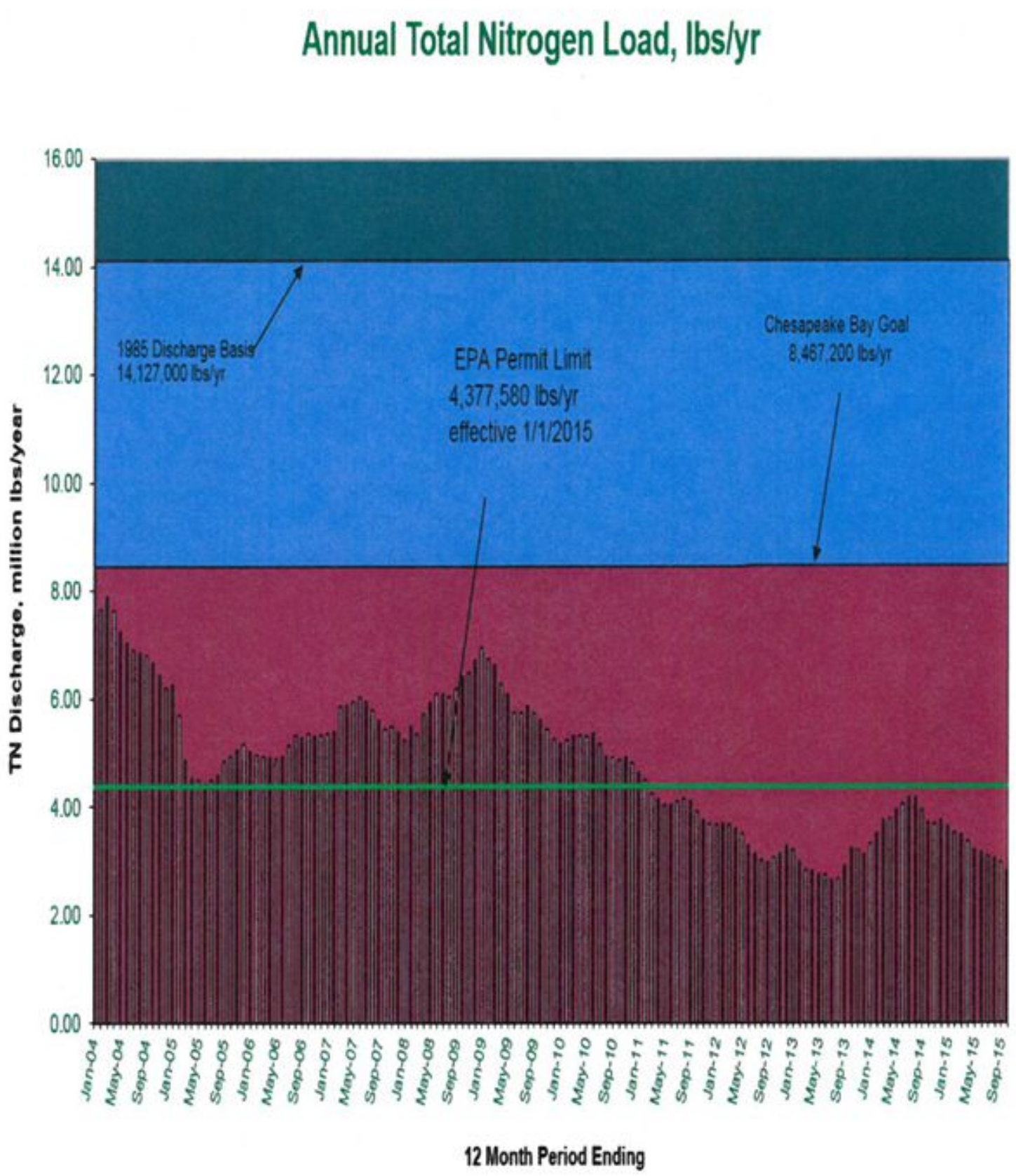



CHP Energy Production
Daily Average Energy Produced (MWH/day)
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
2014-11
2014-12
2015-01
2015-02
2015-03
2015-04
2015-05
2015-06
2015-07
2015-08
2015-09
2015-10

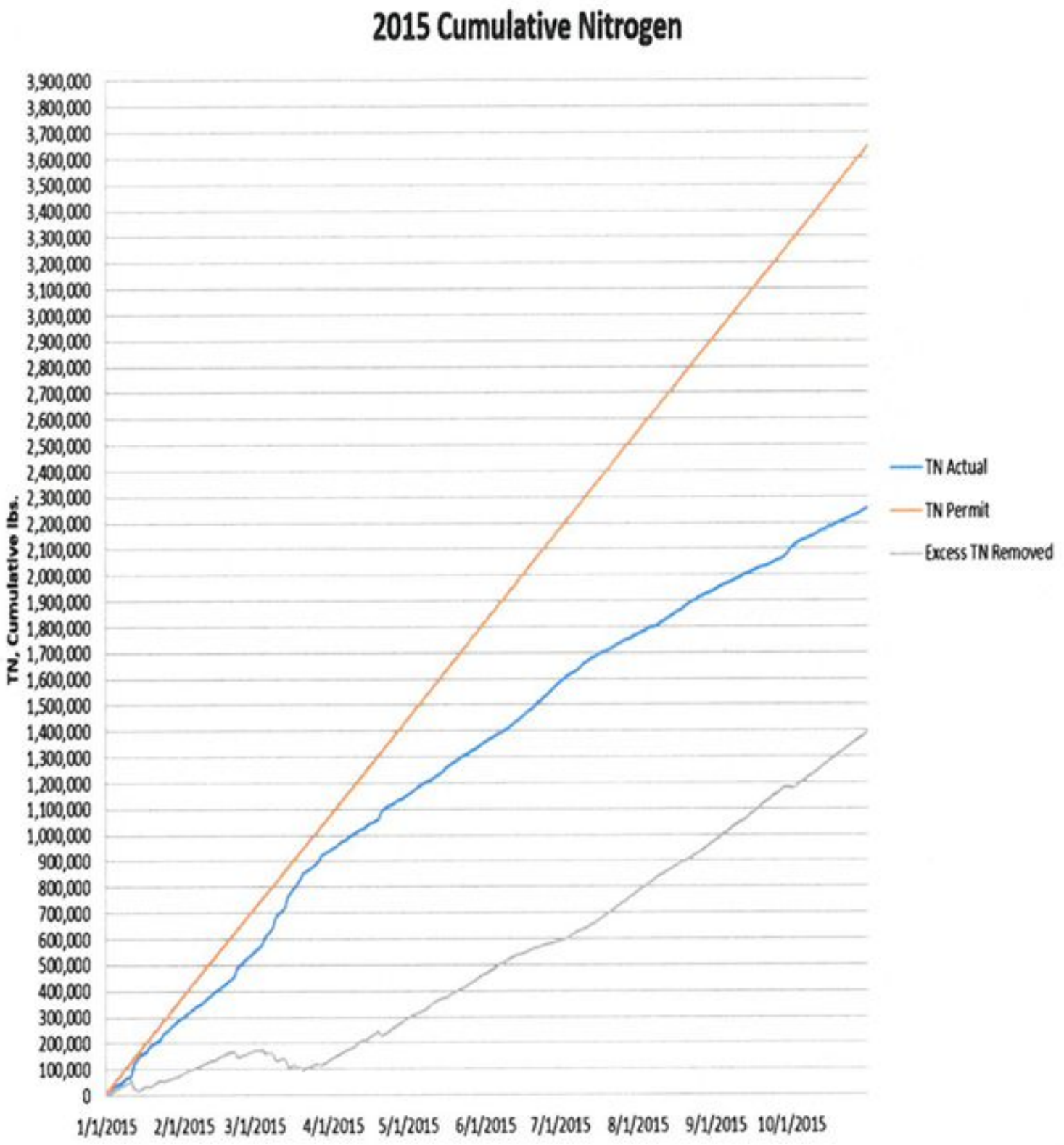

Percent of Plant Energy Supplied by CHP
Percent of Plant Energy Supplied by CHP
30%
25%
20%
15%
10%
5%
0%
2014-11
2014-12
2015-01
2015-02
2015-03
2015-04
2015-05
2015-06
2015-07
2015-08
2015-09
2015-10

BIOLOGICAL NUTRIENT REMOVAL PERFORMANCE

During the month the full-scale BNR process produced an effluent with average total nitrogen concentration of 2.29 mg/l. The figure below shows Blue Plains effluent total nitrogen (TN) since the implementation of full scale BNR.



TN Removal at Blue Plains is on target to meet and exceed the limits for 2015 as seen in the graph below.



START-UP AND COMMISSIONING UPDATE

As some parts of the nearly $1 billion in construction activities at Blue Plains are winding down, the start-up and commissioning process is moving ahead. This process involves testing the newly built facilities to ensure:

1. the facilities perform as designed,
2. they are completed in accordance with an integrated schedule,
3. interfaces with Blue Plains have been made,
4. capture all new assets,
5. identify and order critical spare parts,
6. develop standard operating procedures, and
7. train personnel to take over the new facilities.

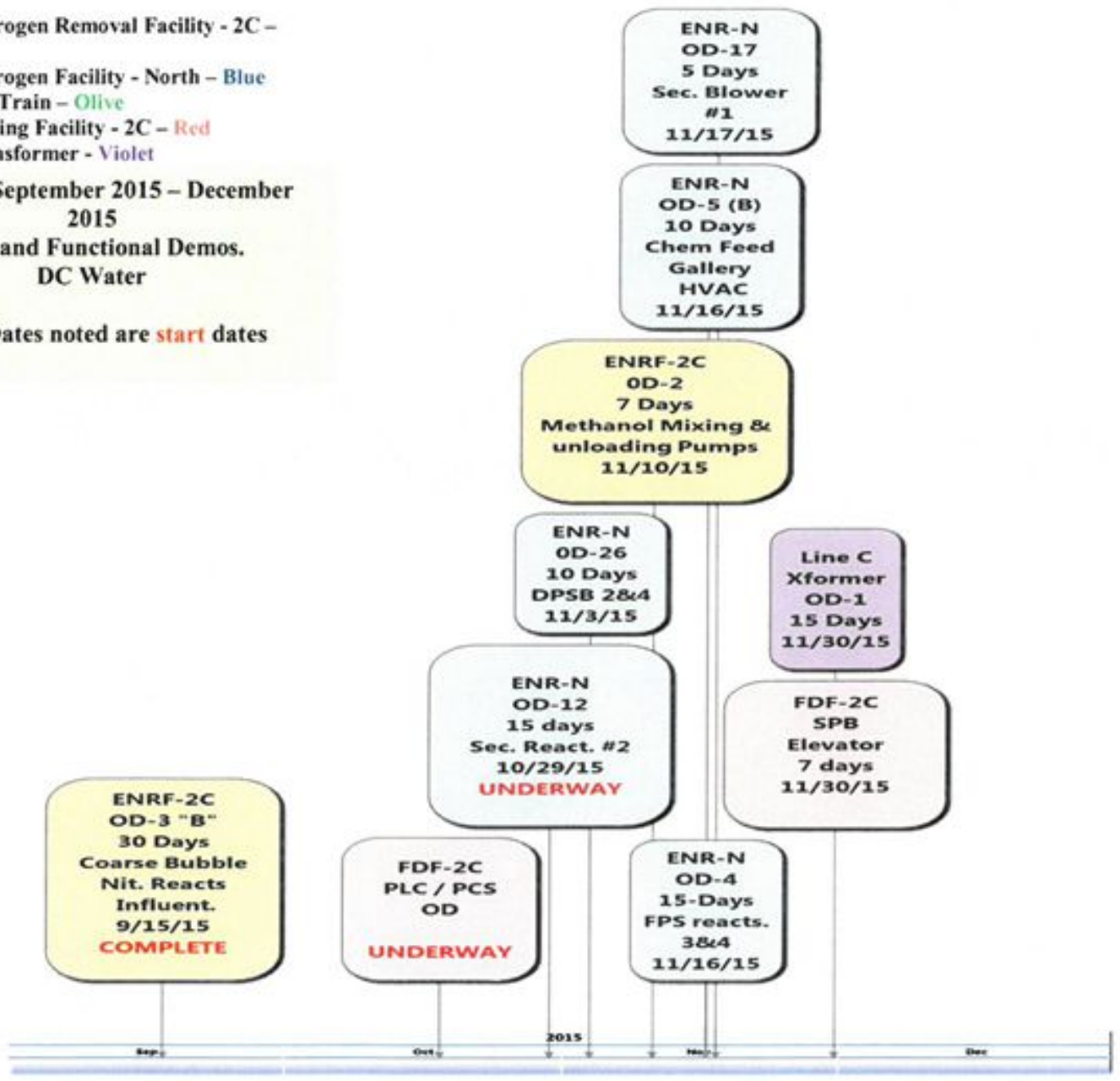
Operational Demonstrations:

One part of the construction checkout process is called the Operational Demonstration (OD). The OD process provides a platform for the contractor and DC Water to prove out the newly constructed process under the various design conditions which can last from 5 days to 1 year. Following is the three month OD look-ahead for 2015.

Enhanced Nitrogen Removal Facility - 2C – Amber
Enhanced Nitrogen Facility - North – Blue
Main Process Train – Olive
Final Dewatering Facility - 2C – Red
Line "C" Transformer - Violet

Timeline September 2015 – December 2015
OD's and Functional Demos.
DC Water

Event Dates noted are start dates



One Operational Demonstration for Secondary Reactor #2 for the Enhanced Nitrogen Removal – North contract commenced at the end of October and is ongoing. Additionally, The Operational Demonstrations for Dual Purpose Sedimentation Basins 2&4 and the Secondary Blower #1 under the Enhanced Nitrogen Removal – North contract will be starting in early-November.

OPERATIONAL DEMONSTRATION: Secondary Reactor #2 - ENR-N (OD 12)

- The third secondary reactor to be upgraded, Reactor #2 was upgraded to improve secondary treatment by improving the tanks aeration system and flow pattern. Upgrade included modifications to the aeration equipment (diffusers, flow meters, etc.) and effluent weirs.
- A 15 day, 24 hour/day Operational Demonstration began on October 29th.
- Testing includes verifying the function of islolation gates, effluent weirs, aeration piping integrety, valves, flow meters, diffusers, disolved oxygen probes, and all associated instrumentation and electrical systems

OPERATIONAL DEMONSTRATION: Secondary Blower #1 - ENR-N (OD 17)

- Each of the 6 secondary blowers that provides air to the secondary biological reactors that removes BOD from the wastewater are being rehabilitated in order to improve blower reliability, performance, and energy economics. Blower #1 is the third blower to be rehabilitated since the start of the contract.
- Blower #1 is about to start its operational demonstrations after all independent systems (i.e. lube oil) are confirmed operating properly. The Operational Demonstration is anticipated to start on November 17th.

Training:

Successful operation of the new facilities will require significant training of operations and maintenance employees on new processes, procedures and equipment. We are also continuously working with Human Capital Management with the Cornerstone Training program to schedule and track employee training.

Training completed from September 29, 2015 – October 21, 2015:

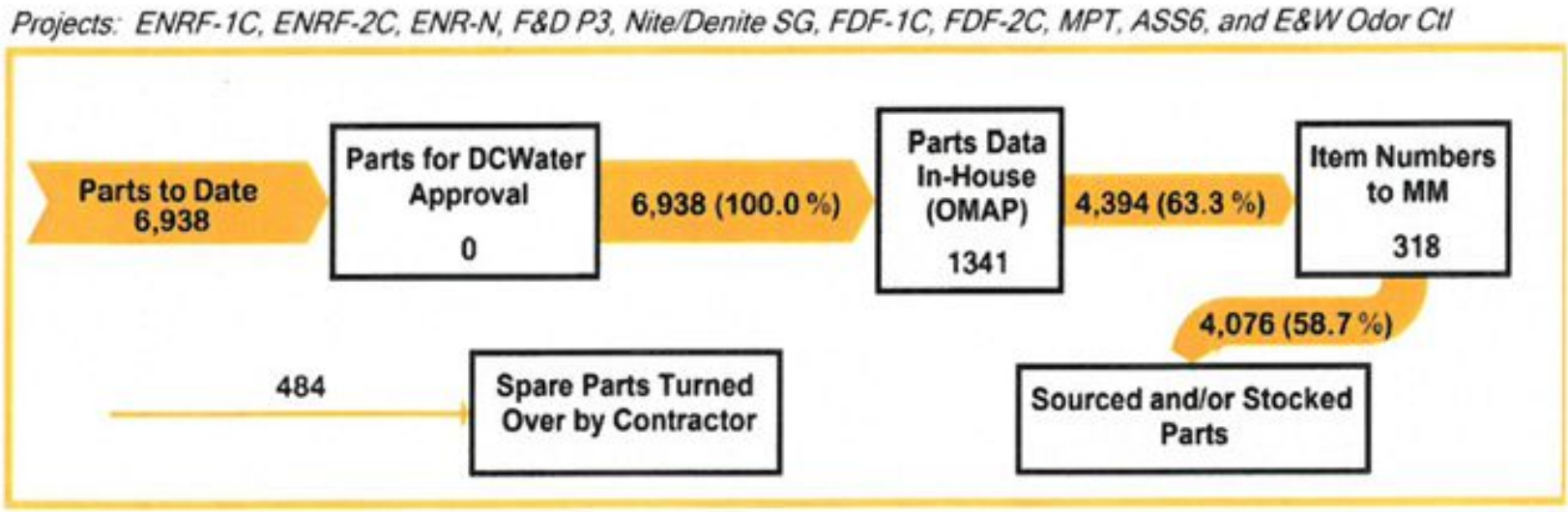
- 1160 hours of vendor training were completed by DC Water personnel.
- 0 hours of other required training were completed by DC Water personnel.

Asset Integration:

The process of asset integration involves capturing and identifying over 15,000 unique assets associated with the new projects coming on-line. This is done to facilitate ordering of critical spare parts through Maximo, identify qualified vendors, and to develop standard operating procedures. Efforts up through the month of October 2015 include:

- Asset attributes based on approved service manuals continue to be logged into the Maximo maintenance program,
- Working with Materials Management (MM) to identify vendors for critical spare parts.
- Parts work flow is as follows:

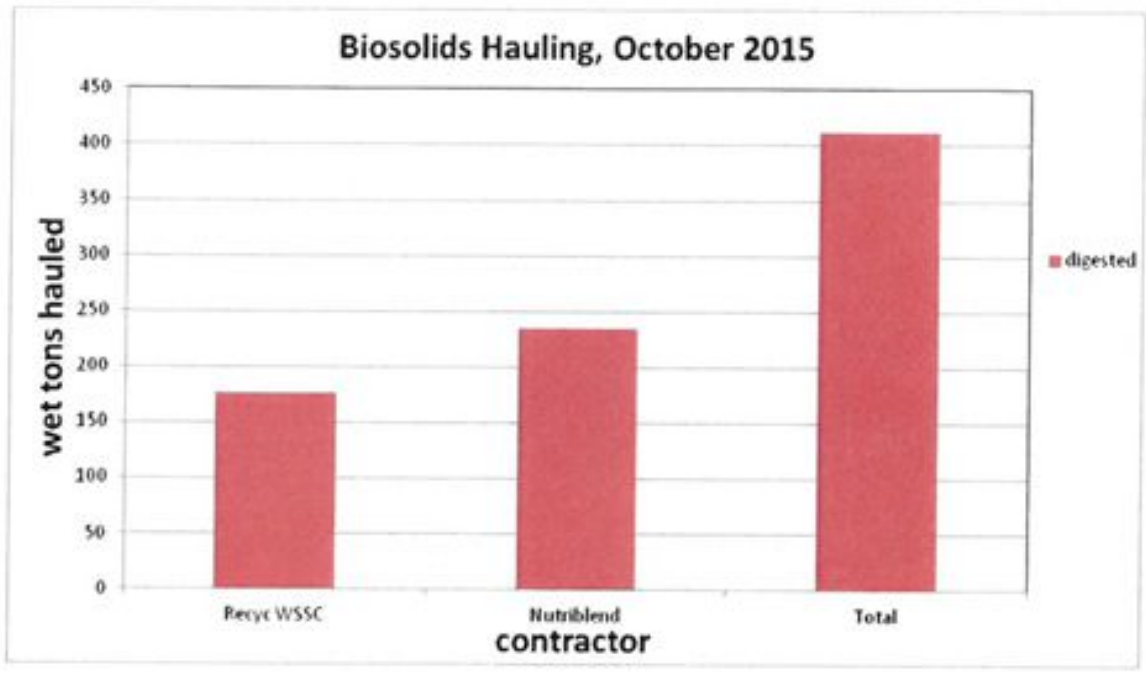
Projects: ENRF-1C, ENRF-2C, ENR-N, F&D P3, Nite/Denite SG, FDF-1C, FDF-2C, MPT, ASS6, and E&W Odor Ctl

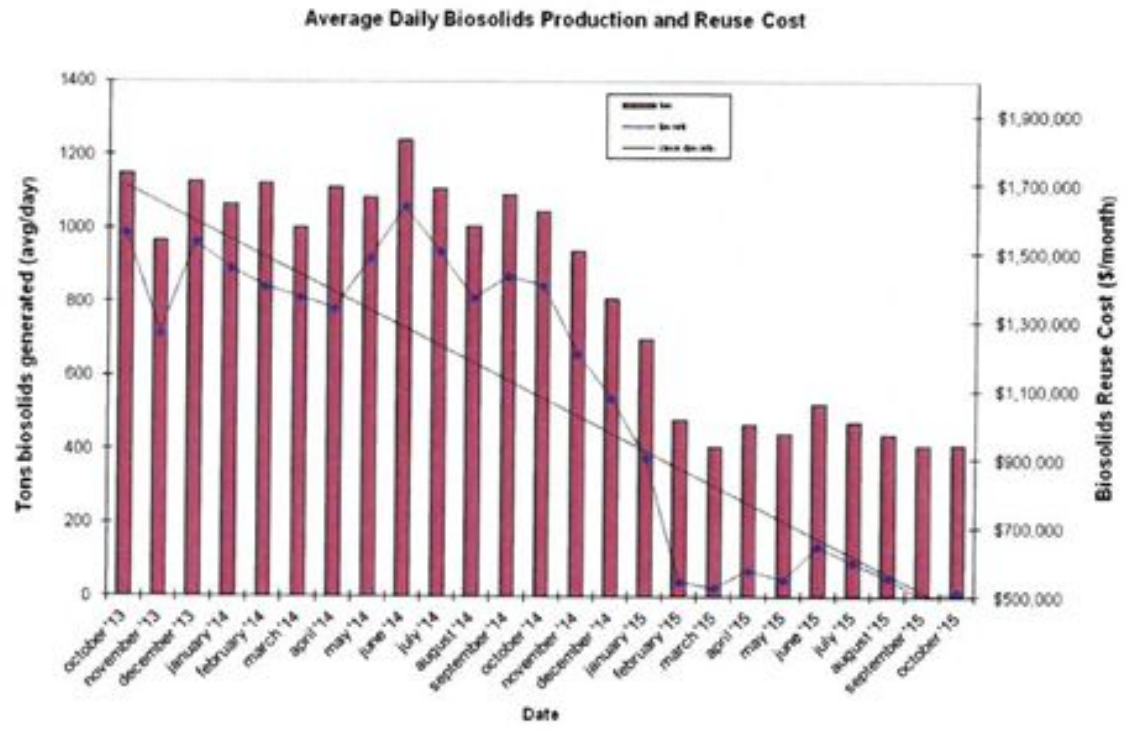


Project Acronym Key:
ENRF-1C: Enhanced Nitrogen Removal Facility 1st Contract
ENRF-2C: Enhanced Nitrogen Removal Facility 2nd Contract
ENR-N: Enhanced Nitrogen Removal – North
F&D P3: Filtration and Disinfection Electrical Upgrades Phase 3
Nite/Denite SG: Nitrification/Denitrification Electrical Upgrades
FDF-1C: Final Dewatering Facility 1st Contract
FDF-2C: Final Dewatering Facility 2nd Contract
MPT: Main Process Train
ASS6: Area Substation #6
E&W Odor Ctl: East and West Odor Control

BLUE PLAINS RESOURCE RECOVERY REPORT

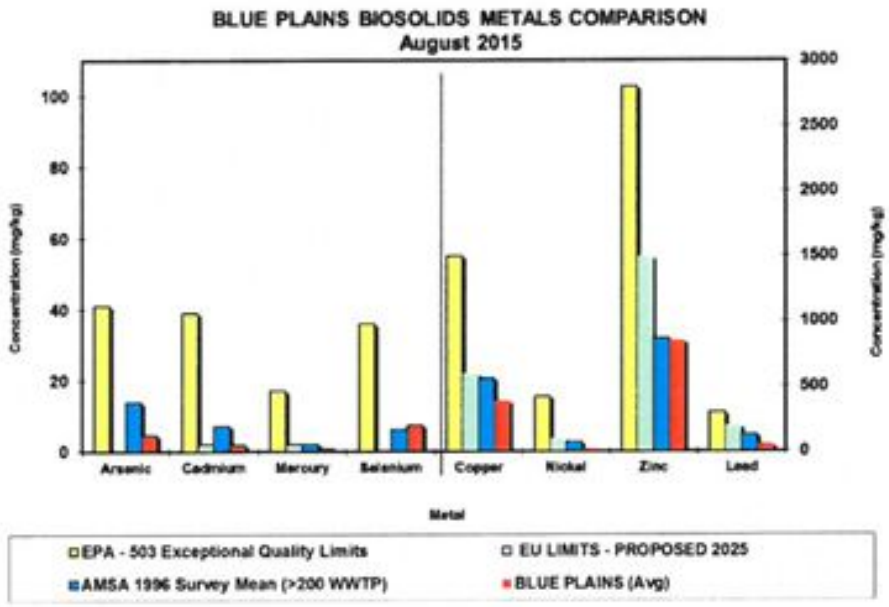
In October, biosolids hauling averaged 412 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of October. The average percent solids for the digested material was 30.4%. At the end of October the Cumberland County storage pad had approximately 2561 tons (~25,000 tons capacity), Goochland pad had approximately 1000 tons of Blue Plains biosolids, and Fauquier lagoon had 1208 tons (~15,000 tons capacity).



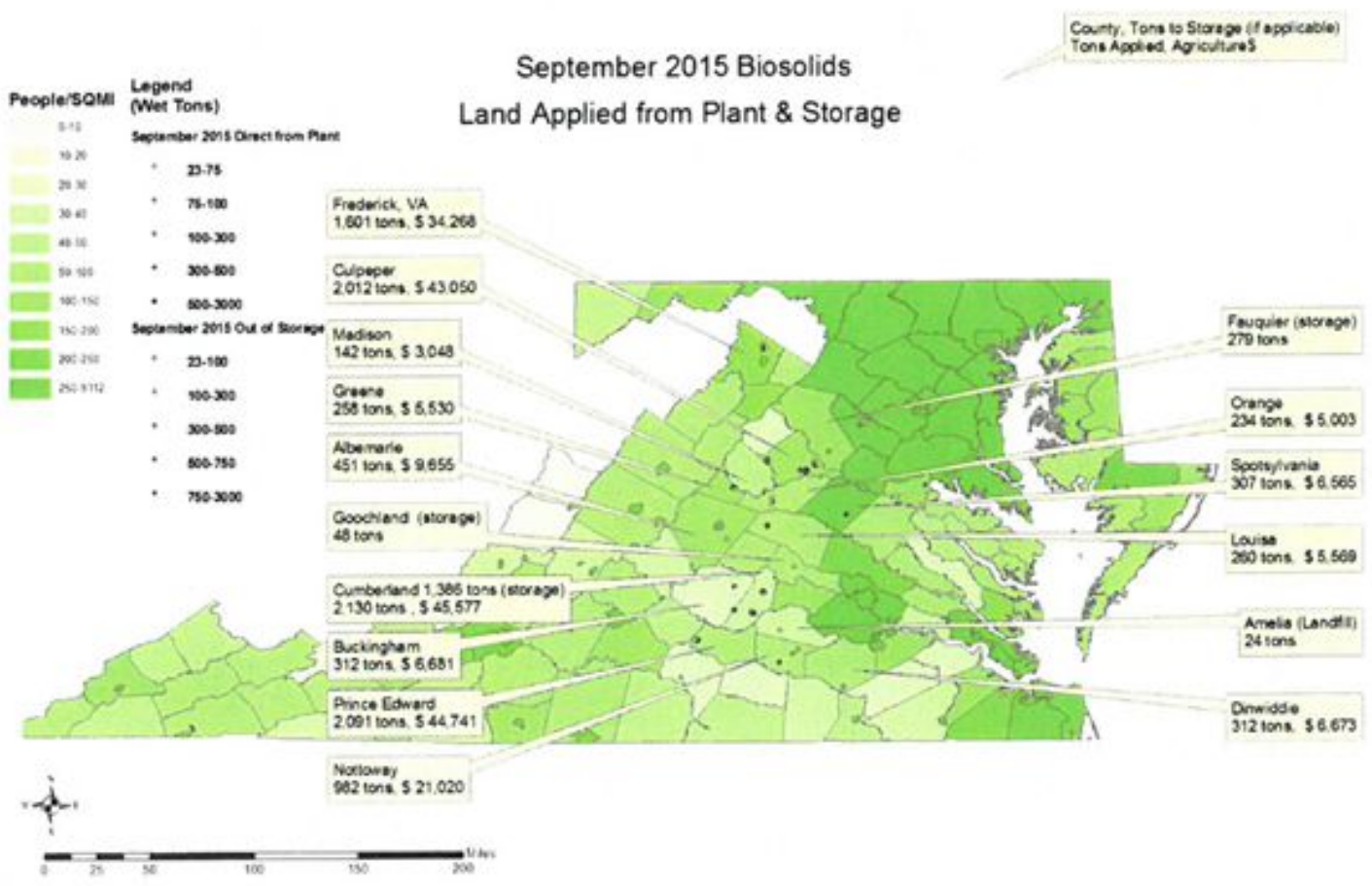


Please note the drop in biosolids management costs (second graph below, right vertical axis) due to the reduction in solids production since digesters came on line, and also due to the drop in fuel costs. In October, diesel prices averaged $2.67/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in October for the two contracts (DC Water and WSSC) was $40.21/wet ton. For comparison, in October 2014 the average contract cost was $43.28/wet ton.

The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of August 2015. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) limits. The EU limits are more conservative than the USEPA limits, and Blue Plains biosolids metals content is lower than the EU standards as well.



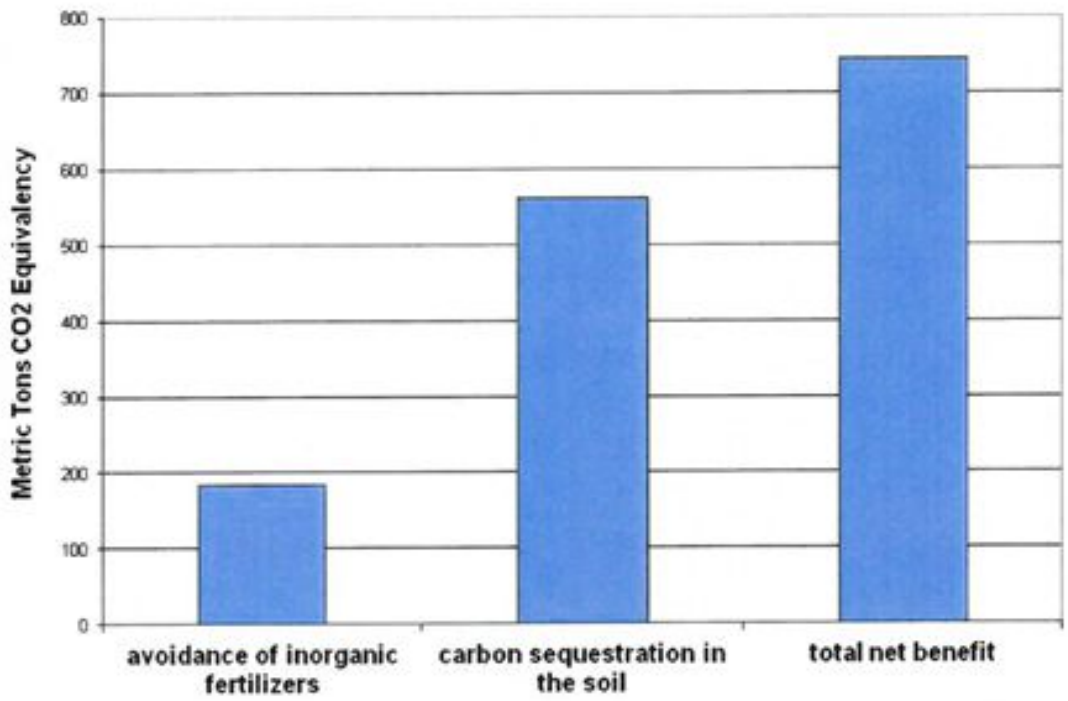
Map of Blue Plains Biosolids Applications and Agricultural $'s for September 2015



Environmental Benefits

The quantity land applied in September coming directly from the plant and from storage facilities equaled 11,116 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 744 metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 1,515,828 car miles off the road in the month of September (assumes 20 mpg, 19.4 lb CO_2 equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 141,046 metric tons CO_2 equivalent.

DCWater Biosolids Recycling Program
Greenhouse Gas Balance Benefits
September 2015 Totals



Highlights

Staff received written confirmation from the Virginia Department of Environmental Quality (DEQ) on October 30th confirming that the thermally hydrolyzed and digested biosolids do, in fact, meet the EPA criteria for Exceptional Quality and Class A designation. This precedent setting certification paves the way for DC Water to market its product in an urban setting for landscaping, tree planting, gardening, etc. VA DEQ staff were very engaged in this process, and worked with staff throughout the 90-day certification period, during which staff collected and analyzed samples on a daily basis (for the first 30 days) and then less frequently for the following 60 days.

The digester commissioning event, held on October 7th, brought together DC officials, EPA administrators, staff, and the press to celebrate the start-up of this milestone technology. The DC Water GM and CEO highlighted not only the green energy produced at the plant via use of the methane produced in the digesters, but also the

Class A biosolids product. This is a valuable product that DC Water has plans to market, as soon as this spring on a trial basis. The DC Water Board Chair, Matt Brown, the DOEE Director Tommy Wells, and the Mayor Muriel Bowser all remarked at the quality of the product, and several challenged us to get the product into the market on onto the shelves of stores in the DC area. Staff is working diligently to make this happen, and will likely market its first product in the coming year. Staff handed out bags of Class A biosolids and flower bulbs to plant this fall with the high quality soil amendment.

Clean Water Quality and Technology

The Clean Water Quality and Technology department includes research and development, pretreatment and laboratory programs.

RESEARCH AND DEVELOPMENT PROGRAM

The R&D group has continued working on a number of projects covering different treatment areas at Blue Plains. For this month's report, recent efforts studying the secondary treatment activated sludge system are highlighted.

Carbon management through high-rate activated sludge treatment - update

In this research we aim to increase carbon redirection and carbon harvesting in the secondary system. Carbon redirection will allow for energy savings through minimization of the aeration needs, while carbon harvesting is needed to allow for energy recovery through digestion of primary sludge. The definition of both terminologies are given below:

- **Carbon redirection** = the process of minimizing carbon oxidization and maximizing carbon sorption and carbon storage on and in activated sludge flocs, respectively.
- **Carbon harvesting** = carbon redirection + settling of energy rich activated sludge flocs, this allows for energy recovery → increased primary sludge production

To maximize the carbon redirection and carbon harvesting, the secondary process is intensified and run at high rate configuration with SRT < 2 days. This operational scheme in the end will not only result in more energy efficient treatment but also allow for increased capacity in the secondary system (eliminating need for additional infrastructure).

Up to now pilot studies have been performed to elucidate the optimal process configuration for Blue Plains to manage carbon/energy in the secondary system. The following configurations have been tested (see Figure 1):

- Completely stirred tank reactor (CSTR) run, simulating the secondary system as 1 tank at aerobic SRT of 2 days, 0.6 days and 0.2 days
- Contact stabilization system, simulating the secondary system with including RAS aeration and low oxygen contact reactor.
- Plug flow reactor, simulating the secondary system as 2 tanks and allowing for longer total SRT vs aerobic SRT

Carbon redirection (level at light green) and carbon harvesting (dark green) was measured at the 3 process configurations under different SRT (Figure 2). Only at a contact stabilization mode, an increased carbon harvesting (35% of incoming carbon, Fig. 2 dark green) and thus energy recovery could be obtained. Although a higher inventory could be achieved in plug flow systems, resulting in similar carbon redirection compared to the contact stabilization test (20% oxidation, around 50% carbon redirection), bioflocculation was poor, therefore not allowing for good settling and thus energy recovery (no dark green, fig. 2). It is hypothesized that the contact stabilization approach allows for increased sorption of fines and extracellular polymer substances (EPS) production, therefore significantly increasing the bioflocculation needed to obtain carbon

harvesting. Compared to the full scale simulation of 2 d SRT CSTR, primary sludge production could potentially be increased with a factor 3-4, while oxidation could decrease from 35% to 20% of incoming COD (Figure 2).

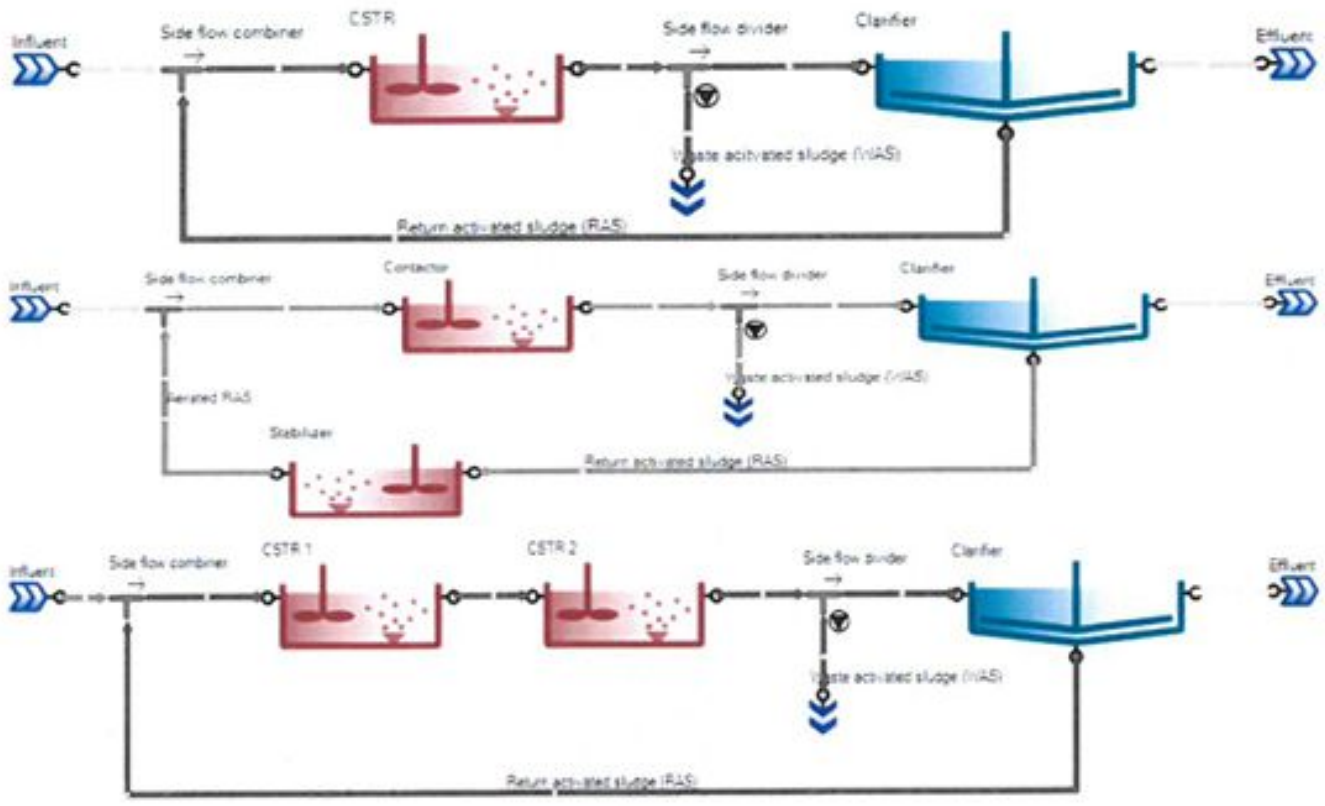
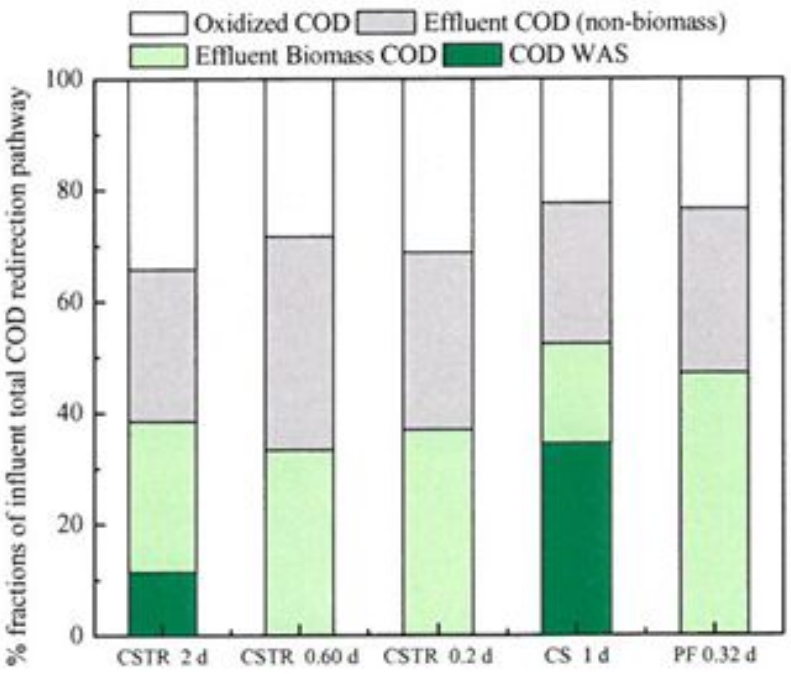


Figure 1: Top: CSTR mode, middle: Contact stabilization mode, bottom: plug flow configuration applied on the high-rate pilot



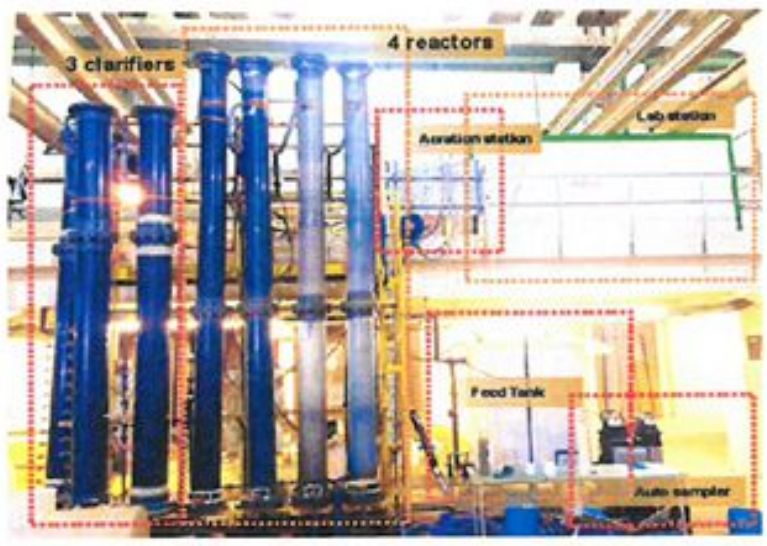


Figure 2: Right: carbon balance results under different operational modes (see also figure 1) and SRT, left: picture of pilot used to perform the studies

Implementation of the contact stabilization approach at full scale is fairly simple and would require feeding in the second half of the reactors instead of from the beginning and operating at higher oxygen level at the beginning of the reactor while operating at lower oxygen levels at the later zones were feed is introduced (see Figure 3).

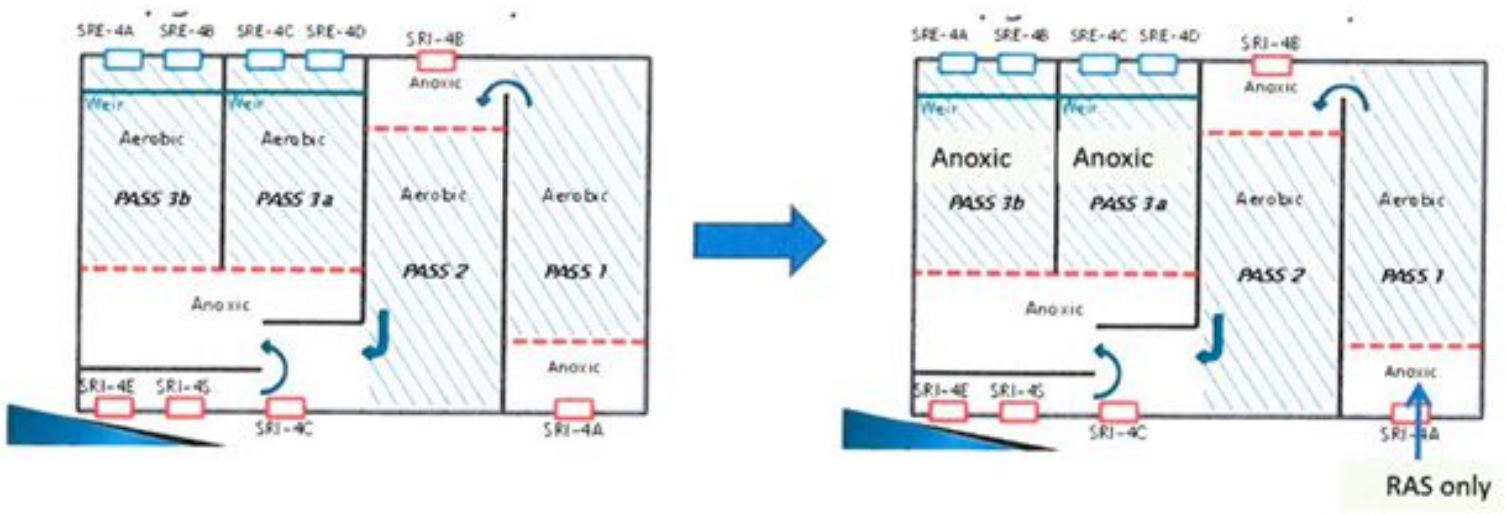


Figure 3: Modification at full scale secondary to apply contact stabilization approach

Events in September

- **August 31- Sept 2nd:** Haydee De Clippeleir attend IWA Resource Recovery conference (Ghent, Belgium): The First International Resource Recovery Conference brought together researchers, involved in the recovery and production of resources from aqueous streams, with representatives of the chemical and other industries. The main scope of the meeting was to create better "pipelines" from resource ("wastewater") to the industries using the products. Such pipelines can create a demand driven process development as well as avoid mismatches between product specification and market demands. One of the projects presented at this conference was the protein recovery project which we are starting soon in collaboration with Avecom, Ghent University and Wetsus.
- **Sept 8th:** Haydee De Clippeleir visits VCS Denmark and the wastewater treatment plant in Odense. The visit aimed to see the cyclone system installed at the plant to induce granulation and to discuss potential collaboration for research between DC Water and VCS Denmark. VCS Denmark is now on of our partners in the WERF study on aerobic granulation in existing infrastructure.
- **September 26 through 30:** A total of six presentations focused on R&D efforts were presented at the WEFTEC conference in Chicago, Illinois.

BLUE PLAINS PRETREATMENT PROGRAM

The Blue Plains Pretreatment Program staff of two manages the Industrial Pretreatment Program, including temporary dewatering dischargers from construction activities, as well as the Hauled Waste Program. Additional responsibilities include providing specialized sampling and program management support for the Blue Plains NPDES permit and facilitating the quarterly Blue Plains Storm Water Committee meetings.

Industrial Pretreatment Program

DC Water currently manages fifteen (15) Significant Industrial User (SIU) permits and fifteen (15) Non-Significant Industrial User (NSIU) wastewater discharge permits. Two SIU permits were renewed this month: WMATA Shepherd Parkway Bus Division and Capitol Power Plant. Payment confirmation for the permit renewal fee was verified this month for Joint Base Anacostia Bolling (JBAB). The permit for the Veterans Affairs Medical Center (VAMC) was administratively extended this month, due to a delay in obtaining their permit renewal fee payment. As soon as payment is received, this permit will be re-issued.

One NSIU inspection was conducted this month at JBAB. Compliance monitoring was conducted this month at the Amtrak High Speed Rail car wash for zinc as a follow-up to a previous violation on July 30, 2015. All follow-up monitoring conducted by DC Water and Amtrak this month were in compliance with the zinc limit. All SIUs and NSIUs are in compliance with discharge standards for the current month.

DC Water currently manages 87 Temporary Discharge Authorization (TDA) permits, primarily for construction site discharges of groundwater and/or surface runoff in the combined sewer area. Five new TDA permits were issued this month. All TDA discharges are currently in compliance with pretreatment standards.

Hauled Waste Program

As of the end of the current month, the hauled waste program had 21 permitted haulers authorized to discharge domestic septage, portable toilet waste, grease trap waste, groundwater or surface runoff, and other types of waste, if approved in advance and have been characterized and meet pretreatment standards. DC Water collected fees from four waste haulers this month from those on a monthly payment plan option.

DC Water received 457 hauled waste loads (1,040,865 gallons) from permitted haulers this month. Manifest forms from each truck entering the plant are collected by the security guards and picked up daily by Pretreatment staff. Data is entered into an Excel spreadsheet to track the volume and type of loads being discharged daily and the results of sampling. Two grease trap waste samples were collected this month from Stillwater Septic and Valley Proteins. The grease trap load collected on September 15, 2015, from Stillwater Septic, exceeded the discharge standard for pH only. The pH was 4.66 (limit is 5.0 to 10.0). A Notice of Violation was issued on September 24, 2015. The other grease trap load, collected from Valley Proteins on September 22, 2015, exceeded the discharge standard for pH and Total Petroleum Hydrocarbon (TPH) Oil and Grease. The pH was 4.45 and the TPH Oil and Grease was 2,074 mg/L (limit is 100 mg/L), however, no visible oil was present in the sample. A Notice of Violation was issued on October 16, 2015. No impact to the treatment plant was observed due to these exceedances.

NPDES Permit Sampling

Pretreatment staff collected quarterly influent, effluent (outfall 002), and biosolids samples for local limit parameters and annual priority pollutants, including low-level influent mercury using clean sampling techniques. Bimonthly metals at outfall 002, including low-level effluent mercury were also collected. In addition, staff collected a wet weather 24-hour composite sample at outfall 002 and grab sample at outfall 001 for low level PCB analysis using EPA Method 1668 this month.

MAIN LABORATORY

The DWT Main Laboratory conducts analyses on Blue Plains effluent for NPDES Permit requirements, as well as on biosolids, pretreatment samples, storm water runoff, and process samples, on a daily basis, 365 days a year. The laboratory currently analyzes approximately 2,800 samples a month and conducts approximately 8,000 analyses, including Total Suspended Solids, Volatile Suspended Solids, Total and Volatile Solids, Ammonia Nitrogen, Nitrite and Nitrate Nitrogen, Total, Soluble, and Ortho Phosphorus, Total and Soluble Kjeldahl Nitrogen, Carbonaceous Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Alkalinity and Hardness, and Fecal Coliform and E. Coli microbiological testing.

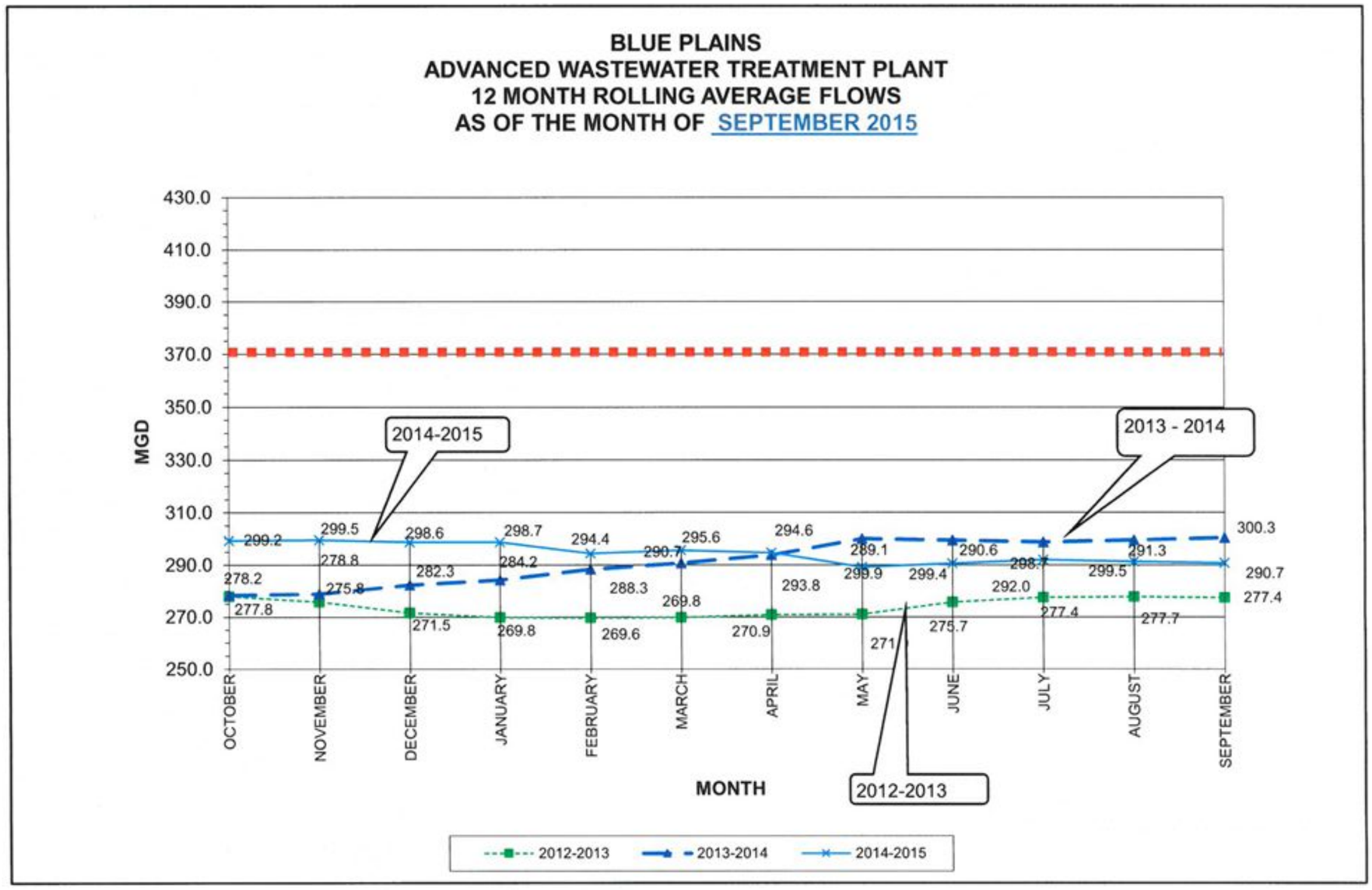
The DWT Laboratory assists the Department of Sewer Services on a regular basis conducting microbiological analysis of water samples for E. Coli bacteria.

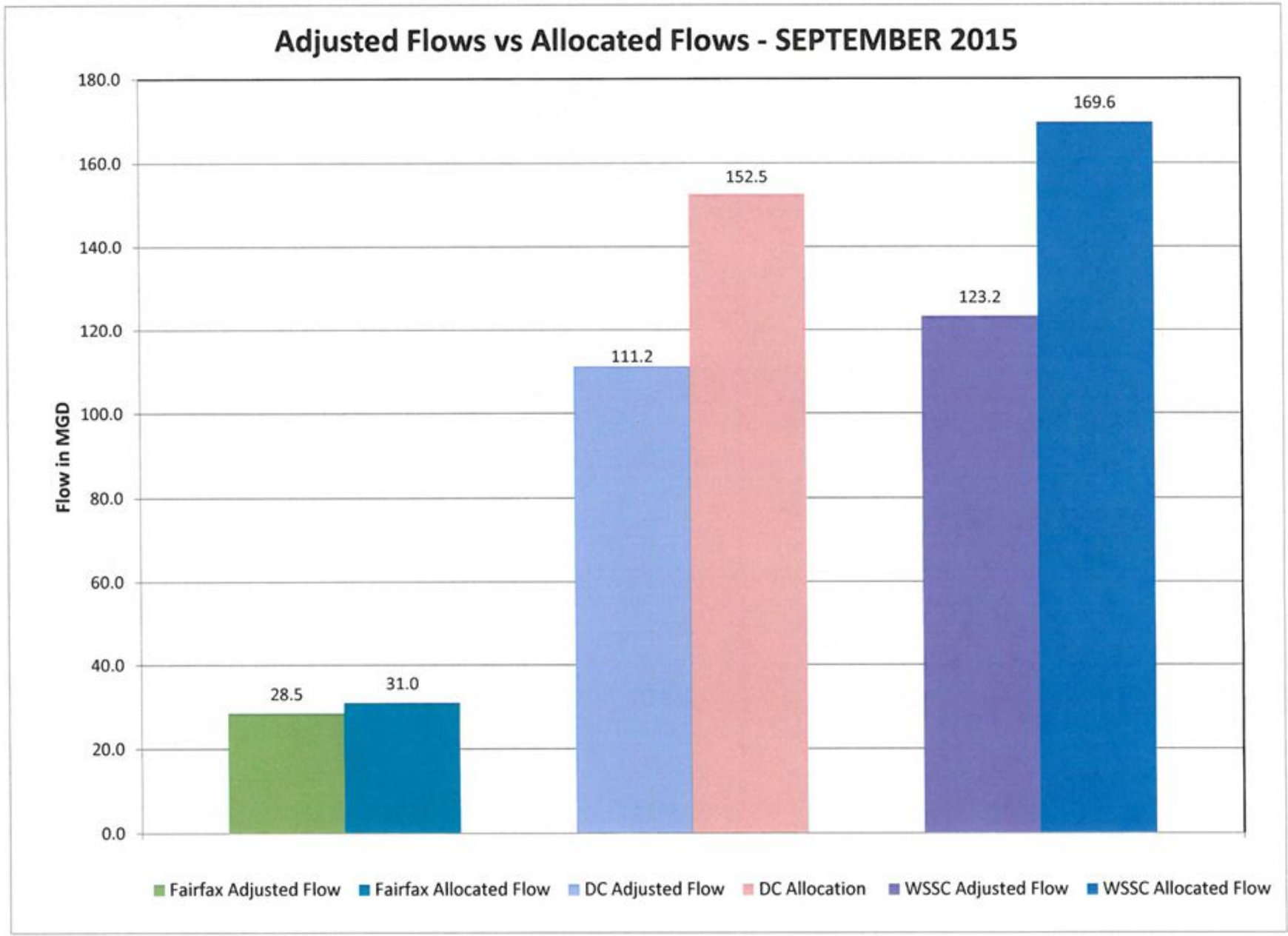
The DWT Laboratory also assists the Biosolids Division with ongoing Odor Control and Lime Stabilization studies, as well as continued pH monitoring of biosolids for 40 CFR 503 Pathogen and Vector Attraction Reduction requirements.

The DWT Laboratory also participates in the WWOA Executive Board.

This month, the DWT Laboratory continued the analysis of Biosolids Division Belt Filter Press samples for fecal coliform bacteria for DCWater's Class A Biosolids Certification.project, as well as digester samples from the new Cambi Thermal Hydrolysis Digestion facility, including Total and Volatile Solids, Total and Volatile Suspended Solids, Ammonia Nitrogen, and pH.

This month, Laboratory staff also attended the Water Environment Federation's Annual Technical Exhibition and Conference.


BLUE PLAINS
ADVANCED WASTEWATER TREATMENT PLANT
12 MONTH ROLLING AVERAGE FLOWS
AS OF THE MONTH OF SEPTEMBER 2015
MGD
430.0
410.0
390.0
370.0
350.0
330.0
310.0
290.0
270.0
250.0
2014-2015
2013 - 2014
2012-2013
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
MONTH
299.2
299.5
298.6
298.7
294.4
295.6
294.6
289.1
290.6
291.3
300.3
278.2
278.8
282.3
284.2
290.7
288.3
293.8
299.9
299.4
298.7
299.5
290.7
278.2
275.8
277.8
271.5
269.8
269.6
269.8
270.9
271
275.7
292.0
277.4
277.7
277.4
2012-2013
2013-2014
2014-2015


Adjusted Flows vs Allocated Flows - SEPTEMBER 2015
Flow in MGD
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
28.5
31.0
111.2
152.5
123.2
169.6
Fairfax Adjusted Flow
Fairfax Allocated Flow
DC Adjusted Flow
DC Allocation
WSSC Adjusted Flow
WSSC Allocated Flow

Potomac Interceptor Long-Term Odor Abatement
Status Report October 2015

Project Description: This project provides for the long-term abatement of odors generated by the Potomac Interceptor by constructing six ventilation buildings along the main sections of the sewer. The six sites are located in the District of Columbia (Site 1995), Montgomery County, MD (Sites 4, 17 and 27), Fairfax County (Site 31) and Loudoun County (Site 46), VA. The constructed system draws gases from the sewer, treats the gas stream with specialized media and discharges the treated air to the atmosphere.

Project Construction Status: Construction at the DC and three Maryland sites is complete. Construction at the two Virginia sites is ongoing and nearing completion. Project Specific details for each site are provided below.

1. DC Site (Site 1995):
   - The facility is operational. Odor complaints were received in the vicinity on October 20, 21, 30, and 31. The odor sources appear to be a combination of the odor control facility, as well as ground-level sources potentially associated with recent rain events and canal draining activities. The facility is currently off until the media replacement activities are completed (week of November 16th). A public outreach and data gathering effort is underway, including the issuance of a formal response and site visits with individual citizens.

2. Maryland Sites:
   - *Site 4 (Little Falls PS)* – The facility is running, however, an odor complaint was recently received. An investigation by DC Water, including multiple odor surveys at the facility and nearby residential areas could not confirm the odors. Residences in the area that the PI Technicians spoke with did not note any issues with odors. Vapor phase sampling was conducted on November 9, 2015 to quantify the exhaust odor concentrations from the facility.
   - *Site 17 (Beltway)* – The facility is running. No odor complaints were received during this period.
   - *Site 27 (Old Angler's Inn)* – The facility is operational and had been continuously operating since July 31, 2015 with the new media blend. Odor complaints were received on October 20, 2015 and November 3, 2015 from Old Angler's Inn. Lab samples were collected to determine the concentrations of odorous sulfur compounds in the exhaust after treatment. A detailed investigation of the system performance and the state of the media is ongoing.

3. Virginia Sites:
   - *Site 31 (Fairfax)* – Under Construction; 99% complete. The facility is operational, but has not been relinquished to DC Water. The facility is not currently running due to odor complaints received in the vicinity. However, the original carbon is currently scheduled to be replaced during the week of November 16th. The facility has been approved by the Fairfax County Fire Marshall, but a firm delivery date for the heater has not been received. The O&M manuals are about 75% complete, and the training activities are about 60% complete. Instructor qualifications are required and no classes have yet been scheduled. Repaving will follow media replacement activities. Work is ongoing for punch list items.
   - *Site 46 (Loudoun)* – Under Construction; 99% complete. The facility is running, but has not been relinquished to DC Water. Work is ongoing for punch list items. The building will be delivered to DC Water upon training of operations personnel, production of O&M manuals and completion of punch list work items. No odor complaints were received during this period.

Design & Construction Activities	Projected	Actual	Status
	Date	Date	
Final Completion	12/30/15	TBD	Training, O&M, and punch list work is ongoing

Note: Daily observation for odor will continue to be conducted along the Interceptor.

Monthly PI Odor Control Facility (OCF) Status Dashboard
October 2015

Operational Status:

Site 4 (MD)	Facility is running, but odor complaint received. DC Water unable to verify after site visits and interviews. Sampling conducted.
Site 17 (MD)	Facility is running.
Site 27 (MD)	Facility running nightly due to recent odor complaints. Detailed system and media investigation is underway.
Site 31 (VA)	Facility not running until media replacement completed (to be completed the week of November 16th).
Site 46 (VA)	Facility is running.
Site 1995 (DC)	Facility not running until media replacement completed (to be completed the week of November 16th). Public outreach effort underway.

Milestones and Accomplishments:

1. Completed actuator manufacturer data collection site visits to the OCFs
2. Site 31 received final approval from the Fairfax County Fire Marshall
3. Media Replacement Justification Memo submitted 10/2/15

Legend - Operational Status

Facility is running
Status update
Issues to be resolved

Key Points:

1. Media replacement activities to be completed at Sites 1995 and 31 the week of November 16th
2. Sites 31 and 46 are 99% complete
3. Punch list items, O&M manuals, and Training activities remain for Sites 31 and 46

Construction Status:

PI Odor Control Facilities	Site 1995 - DC	Site 4 - MD	Site 17 - MD	Site 27 - MD	Site 31 - VA	Site 46 - VA
Completion of Sealing Vent Structures	May 22, 2013	November 21, 2013	November 22, 2013	May 2, 2013	June 4, 2015	June 4, 2015
Completion of Sealing Manholes	March 28, 2013	March 28, 2013	March 28, 2013	May 2, 2013	September 30, 2015	September 30, 2015
OD Completion Date	March 28, 2013	July 8, 2013	July 8, 2013	October 15, 2013	July 29, 2015	May 6, 2015
Service Manuals Complete or Forecast	July 16, 2015	July 16, 2015	July 17, 2015	July 17, 2015	December 1, 2015	December 1, 2015
Training Completion or Forecast	April 11, 2013	April 11, 2013	April 11, 2013	April 11, 2013	December 15, 2015	December 15, 2015
Substantial Completion Date or Forecast	June 17, 2013	December 27, 2013	December 9, 2013	October 15, 2013	December 15, 2015	December 15, 2015
Final Completion Date or Forecast	June 5, 2015	June 5, 2015	June 5, 2015	June 5, 2015	December 30, 2015	December 30, 2015
Media Replacement Date or Forecast	November 19, 2015	TBD	TBD	July 30, 2015	November 19, 2015	TBD

Dates: Green represents completed activity, Blue represents status update, Red represents delay

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION YEAR:

PROTECTIVE SERVICES
(Joint Use/Indirect Cost)

PURPOSE

Approval to exercise option year 3 for protective services contract in the amount of $5,352,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	PARTICIPATION:	SUBS:	PARTICIPATION:
Allied Barton Security Services 2034 Eisenhower Avenue, Suite 140 Alexandria, VA 22314	0%	Security Assurance Management 910 17th Street, NW, Suite 220 Washington, DC 20006 LSBE	35%

DESCRIPTION AND PURPOSE

Actions	Value	Period
Original Contract Value:	$4,934,348.12	12/16/12 – 12/15/13
Number of Option Years: 4		
Modification	$441,502.47	12/16/13 – 1/15/14
Option Year 1	$5,058,299.72	1/16/14 – 12/15/14
Option Year 2	$4,852,254.74	12/16/14 – 12/15/15
Cumulative Contract Value	$15,286,405.05	12/16/2012 -12/15/2015
Cumulative Contract Spend	$12,171,984.10	12/16/12 – 11/4/15
NEW ACTION:		
Option Year 3	$5,352,000.00	12/16/15 – 12/15/16
New Cumulative Contract Value Total	$20,638,405.05	

Purpose of the Contract:

This contract will provide highly trained and reliable commissioned Special Police Officers (SPOs) to safeguard DC Water's property and personnel, to prevent and deter unauthorized access or removal of property and to assist DC Water in all other security related matters.

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	**Award Based On:**	Highest Ranked Firm
Commodity:	Goods and Services	**Contract Number:**	WAS-12-063-AA-RA
Contractor Market:	Open Market with preference for certified firms		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Security
Service Area:	Security	**Department Head:**	Steve Caldwell

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	84.40%	$4,517,088.00
Washington Suburban Sanitary Commission	11.41%	$610,663.20
Fairfax County	2.87%	$153,602.40
Loudoun County	1.16%	$62,083.20
Other Potomac Interceptor	0.16%	$8,563.20
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	$5,352,000.00

11/10/15
Dan Bae — Date
Director of Procurement

11/10/2015
Gail Alexander-Reeves — Date
Director of Budget

11/10/2015
Rosalind Inge — Date
Assistant General Manager, Support Services

George S. Hawkins — Date
General Manager

DC WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

TELECOMMUNICATION SERVICES

(JOINT-USE)

PURPOSE

Approval to execute a modification to add funding to the contract for telecommunications services in the amount of $780,150.

CONTRACTOR/SUB/VENDOR INFORMATION			
PRIME:	**PARTICIPATION:**	**SUBS:**	**PARTICIPATION:**
Verizon 22001 Loudoun County Parkway Ashburn, Virginia 20147	0%		

CONTRACT ACTIONS		
Actions	**Value**	**Period**
Original Contract	$ 376,446.00	11/08/07 - 11/07/08
Contract Modifications (#1 – #5)	$ 6,397,812.82	11/08/08 - 11/07/13
Contract Modifications (#6 - #8)	$ 2,445,696.00	11/08/13 - 11/07/15
Contract Modification (#9)	$ 500,000.00	11/08/15 - 12/15/15
Cumulative Contract Value	$ 9,719,954.82	11/08/07 - 12/15/15
Cumulative Contract Spend	$ 6,991,029.11	11/08/07 - 10/31/15
NEW ACTIONS:		
Contract Modification	$ 780,150.00	12/16/15 – 11/07/16
New Cumulative Contract Value Total	$10,500,104.82	

Purpose of the Contract:
To provide telecommunication services that includes SCADA, SCADA Frame Relay, SCADA ELAN (TLS) Data Network Circuits, Analog Lines, and Local Telephone Service throughout the Authority.

Contractor's Past Performance:
The contractor's past performance has been satisfactory.

Note: No LSBE participation for this contract.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	**Award Based On:**	Not Applicable
Commodity:	Telecommunication Services	**Contract Number:**	GS11T08BJD6001
Contractor Market:	GSA Schedule		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Information Technology
Service Area:	DC Water Wide	**Department Head:**	Thomas Kuczynski

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	84.40%	$ 658,446.60
Washington Suburban Sanitary Commission	11.41%	$ 89,015.12
Fairfax County	2.87%	$ 22,390.30
Loudoun County	1.16%	$ 9,049.74
Potomac Interceptor	0.16%	$ 1,248.24
Total Estimated Dollar Amount	100.00%	**$ 780,150.00**

11/5/15
Dan Bae Date
Director of Procurement

11/5/15
Gail Alexander-Reeves Date
Director of Budget

11/13/15
Thomas Kuczynski Date
Chief Information Officer

_____/_____
George S. Hawkins Date
General Manager

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

GOODS AND SERVICES CONTRACT:

REPLACE GRIT CLASSIFIERS

(Joint Use)

Approval to execute a contract to fabricate, deliver and provide installation oversight to replace sixteen (16) grit classifiers in the amount of $1,126,055.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Lakeside Equipment Company 1022 Devon Avenue Bartlett, Illinois 60103	N/A	0 %

DESCRIPTION AND PURPOSE

Base Year Contract Value:	$1,126,055.00
Contract Base Period:	12 months
Number of Option Years in Contract:	0
Anticipated Contract Start Date:	December 1, 2015
Anticipated Contract Completion Date:	November 30, 2016
Proposal Closing Date:	August 17, 2015
Proposals Received:	3
Preference Discount Received	$0
Unit Cost for per classifier:	$62,046.66 - $70,130.00
Quantity for 16 classifiers and installation oversight:	$999,750.08 - $1,126,055.00

Purpose of the Contract:

To contract for the fabrication, delivery and installation oversight for the replacement of sixteen (16) grit classifiers in the East and West Headworks Buildings. The current classifiers that are failing or have become inoperative.

Contract Scope:

To provide structurally modified grit classifiers capable of meeting exacting specifications that are highly reliable and complies with the environmental and permitting regulations.

The procurement method used was a Request for Proposal (RFP), providing for award to be based on the proposal most advantageous to DC Water. The names of the other firms submitting proposals are as follows:

Proposals Received:

Smith/Loveless, Inc	$62,739.00 Per Classifier
SPIRAC, Inc.	$62,046.66 Per Classifier
Lakeside Equipment Company	$70,130.00 Per Classifier

Despite the higher price, Lakeside Equipment Company's proposal best met DC Water requirements and best addressed the corrective measures to prevent premature failures and undesirable maintenance issues experienced with the current classifiers.

Note: No LSBE participation for this contract.

PROCUREMENT INFORMATION

Contract Type:	Goods and Services	**Award Based On:**	Best Value
Commodity:	Grit Classifiers	**Contract Number:**	15-PR-DMS-45
Contractor Market:	Open Market with Preference Points		

BUDGET INFORMATION

Funding:	Capital Equipment	**Department:**	Maintenance Services
Service Area:	Blue Plains AWTP	**Department Head:**	Anthony Mack
Activity:	EQP4830EP6		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.93%	$472,154.86
Washington Suburban Sanitary Commission	44.19%	$497,603.70
Fairfax County	9.33%	$105,060.93
Loudoun County	3.91%	$44,028.75
Other (Potomac Interceptor)	0.64%	$7,206.75
TOTAL ESTIMATED DOLLAR AMOUNT	**100.00%**	$1,126,055.00

11/6/15
Dan Bae Date
Director of Procurement

11/9/15
Gail Alexander-Reeves Date
Director of Budget

11/10/15
Aklile Tesfaye Date
Assistant General Manager
Blue Plains

George S. Hawkins Date
General Manager

DC WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

GOODS AND SERVICES CONTRACT OPTION

WORK UNIFORMS AND MISCELLANEOUS WORK CLOTHING

(JOINT-USE/INDIRECT COST)

PURPOSE

Approval to execute an extension of option year four (4) for work uniforms and miscellaneous work clothing in the amount of $600,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION			
PRIME:	**PARTICIPATION:**	**SUBS:**	**PARTICIPATION:**
Alpine Trading Company, Inc. 400 Overpeck Avenue Englewood, New Jersey 07631	**0%**	**None**	**0%**

DESCRIPTION AND PURPOSE		
Actions	**Value**	**Period**
Original Contract	$575,514.10	11/12/10 – 11/11/11
Number of Option Years: 4		
Option Years 1 and 2	$852,125.00	11/12/11 – 12/11/13
Option Years 3 and 4	$969,480.00	12/12/13 – 12/11/15
Contract Modification 1	$37,500.00	11/12/11 – 12/11/11
Contract Modification 2	$300,000.00	10/01/15 – 12/11/15
Cumulative Contract Value	$2,734,619.10	11/12/10 – 12/11/15
Cumulative Contract Spend	$2,396,191.59	11/12/10 – 09/30/15
NEW ACTION:		
Option Year 4 Extension	$600,000.00	12/12/15 – 04/30/16
New Cumulative Contract Value Total	$3,334,619.10	

Purpose of the Contract:
To supply uniforms and other work clothing to the District of Columbia Water & Sewer Authority's (DC Water) employees Authority wide.

Contractor's Past Performance:
The contractor's past performance has been satisfactory.

Note:
No LSBE participation for this contract.

PROCUREMENT INFORMATION

Contract Type:	Fixed Unit Price Requirements Contract	**Award Based On:**	Highest Scored Vendor
Commodity:	Goods and Services	**Contract Number:**	WAS-10-047-AA-JH
Contractor Market:	Open Market with LBE/LSBE Preference Points		

BUDGET INFORMATION

Funding:	Operating	**Department:**	Department of Procurement
Service Area:	Authority-wide	**Department Head:**	Dan Bae

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	84.40%	$ 506,400.00
Washington Suburban Sanitary Commission	11.41%	$ 68,460.00
Fairfax County	2.87%	$ 17,220.00
Loudoun County	1.16%	$ 6,960.00
Other Potomac Interceptor	0.16%	$ 960.00
Total Estimated Dollar Amount	100.00%	**$ 600,000.00**

_____ / 11/5/15
Dan Bae Date
Director of Procurement

_____ / 11/9/15
Gail Alexander-Reeves Date
Director of Budget

_____ / 11/10/2015
Rosalind Inge Date
Assistant General Manager
Support Services

_____ / _____
George S. Hawkins Date
General Manager

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

CONSTRUCTION CONTRACT: 150120

Cleaning and Inspection of the Upper Potomac Interceptor Relief Sewer (Joint Use)

Approval to execute a construction contract for $4,398,682.00

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
Compliance EnviroSystems, LLC 1401 Seaboard Drive Baton Rouge, LA 70810	Doetsh Environmental Services Warren, MI		47.7%
	Savin Engineers, PC Washington, DC	MBE	21.2%
	Appex Petroleum Upper Marlboro, MD	MBE	11.0%
	Bulldog Dist. Trucking Silver Spring, MD	MBE	2.2%
	R&R Contracting Baltimore, MD	WBE	8.8%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	$4,398,682.00	
Contract Time:	108 Days	(0 Year, 4 months)
Anticipated Contract Start Date (NTP):	12-14-2015	
Anticipated Contract Completion Date:	03-31-2016	
Bid Opening Date:	10-14-2015	
Bids Received:	3	
Other Bids Received		
Pipe and Plant Solution, Inc.	$ 4,797,200.00	
National Water Main Cleaning Co.	$ 7,992,600.00	

Purpose of the Contract:

- Clean and inspect the Upper Potomac Interceptor Relief Sewer (UPIRS) adjacent to the John F. Kennedy Center for the Performing Arts (Kennedy Center), using specialized heavy cleaning equipment and combined CCT/sonar recording and sonar inspection techniques.
- The sediment deposit buildup between MH 35 and MH 37a of the UPIRS contributed to the April and May 2014 overflow at the National Crescent Trail. Timely cleaning of this portion of the UPIRS will minimize the risk of future overflows.
- Due to an on-going Kennedy Center expansion project at this location, DC Water must complete this cleaning work no later than March 31, 2016. Failure to meet that completion date could delay the cleaning project for several years and thereby place the Crescent Trail at significant risk.

Contract Scope:

- Pre-cleaning and Post-cleaning inspection of approximately 200 linear feet of the 108" diameter (or largest dimension of non-circular) Upper Potomac Interceptor Relief Sewer between Structure 35 and the Potomac Pumping Station.
- Heavy Cleaning of approximately 3,200 linear feet of the 92" – 156" diameter (or largest dimension of non-circular) Upper Potomac Interceptor Relief Sewer between Structures 35 and 37a.
- Remove and legally dispose approximately 40,000 cubic feet of debris.
- Provide Traffic control.
- Monitor for, clean, and remove debris that collects at the Potomac Pumping Station upstream of screens.

Federal Grant Status:

- This Contract is not eligible for Federal grant funding assistance.

PROCUREMENT INFORMATION

Contract Type:	Lump Sum/Unit Price	**Award Based On:**	Lowest responsive, responsible bidder
Commodity:	Construction	**Contract Number:**	150120
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Sanitary	**Department Head:**	Liliana Maldonado
Project:	A4		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	22.10%	$972,108.72
Federal Funds	0.00%	$0.00
Washington Suburban Sanitary Commission	41.90%	$1,843,047.76
Fairfax County	27.10%	$1,192,042.82
Loudoun County & Potomac Interceptor	8.90%	$391,482.70
Total Estimated Dollar Amount	**100.00%**	**$4,398,682.00**

Gail Alexander-Reeves / 11/12/15
Gail Alexander-Reeves Date
Director of Budget

Dan Bae for / 11/12/15
Dan Bae Date
Director of Procurement

Leonard R. Benson / 11-10-15
Leonard R. Benson Date
Chief Engineer

_____ / _____
George S. Hawkins Date
General Manager

IFB # 150120 - Cleaning of the UPIRS

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT:

Wastewater Treatment Program Manager
(Joint Use)

Approval to execute a supplemental agreement to DCFA #449-WSA in an amount not to exceed $47,100,000.00. This modification will exceed the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:		PARTICIPATION:
AECOM Services of DC, A Professional Corporation 2020 K Street NW, Suite 300 Washington, DC 20006-1806	The Allied Companies, LLC Washington, DC	MBE	8.1%
	Davis Brothers Construction Co., Inc. Richmond, VA	MBE	2.9%
	Delon Hampton & Associates Washington, DC	MBE	3.5%
	EPCM, Inc. Burke, VA	MBE	7.0%
	Loretta Caldwell and Associates Washington, DC	MBE	2.9%
	McKissack & McKissack Washington, DC	WBE	0.9%
	Rohadfox Construction Control Services Atlanta, GA	WBE	3.2%
	PEER Consultants, P.C. Washington, DC	MBE	4.2%
	Sigma Associates, Inc. Washington, DC	MBE	0.3%
	Enterprise Security Solutions Smithsburg, MD		2.9%
	EMA Washington , DC		0.9%
	Brown and Caldwell Alexandria, VA		0.8%

DESCRIPTION AND PURPOSE

Original Contract Value:	$63,000,000.00	
Value of this Supplemental Agreement:	$47,100,000.00	
Cumulative SA Value, including this SA:	$47,100,000.00	
Current Contract Value, Including this SA:	$110,100,000.00	
Original Contract Time:	2190 Days	(6 Years, 0 Months)
Time extension, this SA:	0 Days	
Total SA contract time extension:	0 Days	(0 Years, 0 Months)
Contract Start Date:	01-29-2013	
Contract Completion Date:	01-28-2019	

Purpose of the Contract:

To provide continuing professional engineering, program management and technical services to develop, manage, coordinate and commission projects at Blue Plains under the Wastewater Treatment service area. This contract is for a six-year program funded in two phases. The original agreement amount was approved to fund Phase 1 for the initial 3 year period. Phase 2 for the second 3 year period was pending satisfactory performance and progress under Phase 1, which has been achieved. This formal contract modification is necessary to authorize Phase 2 performance.

Original Contract Scope:

Provide professional engineering, management and technical services to develop, plan and manage projects within the Blue Plains Total Nitrogen Removal Program; Liquid Processing Program; and Plant-wide Projects Program, to ensure compliance with current and future NPDES, Consent Decree and Clean Air Act requirements.

Previous Supplemental Agreement Scope:

- None

Current Supplemental Agreement Scope:

Phase 2 continues and completes existing tasks initiated under Phase 1 and consists of knowledge and systems transfer component to DC Water for the following portfolios:

- Program Management : Oversee process planning and project management for both liquid and biosolids CIP projects at Blue Plains;
- Tunnel Dewatering Pumping Station / ECF Design Build Project; Support construction management team and provide commissioning support for the Blue Plains DCCR pumping and treatment component;
- Air Quality Program; Provide comprehensive air permit support services for compliance with both federal and DC regulations;
- Plant-Wide Support; Perform site-wide facility condition assessment and planning reports in support of the CIP planning process;
- Enterprise-wide Support; Support for Blue Horizon initiatives including Enterprise Wide Health and Safety Plan development;
- Research And Pilot Studies: Support key research and innovation activities such as co-digestion and deammonification;
- Completion of Facility / Master Plan: Develop key long-range facility and process planning road-map for Blue Plains

Future Supplemental Agreement Scope:

- None anticipated at this time

PROCUREMENT INFORMATION

Contract Type:	Cost Plus Fixed Fee	**Award Based On:**	Highest Ranking Score
Commodity:	Engineering Services	**Contract Number:**	DCFA #449
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	**Department:**	Engineering and Technical Services
Service Area:	Wastewater	**Department Head:**	Liliana Maldonado
Project:	A2, AL, AM, EE, GP, IC, JF		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	41.22%	$19,414,620.00
Washington Suburban Sanitary Commission	45.84%	$21,590,640.00
Fairfax County	8.38%	$3,946,980.00
Loudoun County & Potomac Interceptor	4.56%	$2,147,760.00
Total Estimated Dollar Amount	**100.00%**	**$ 47,100,000.00**

Gail Alexander-Reeves / 11/10/2015
Director of Budget — Date

Dan Bae / 11/15/15
Director of Procurement — Date

Leonard R. Benson / 11/10/15
Chief Engineer — Date

George S. Hawkins / _____
General Manager — Date

District of Columbia
Water and Sewer Authority

Capital Improvement Program Report

FY-2015 4th Quarter
July 1st through September 30th, 2015

Board of Directors
Environmental Quality and Sewerage Services Committee

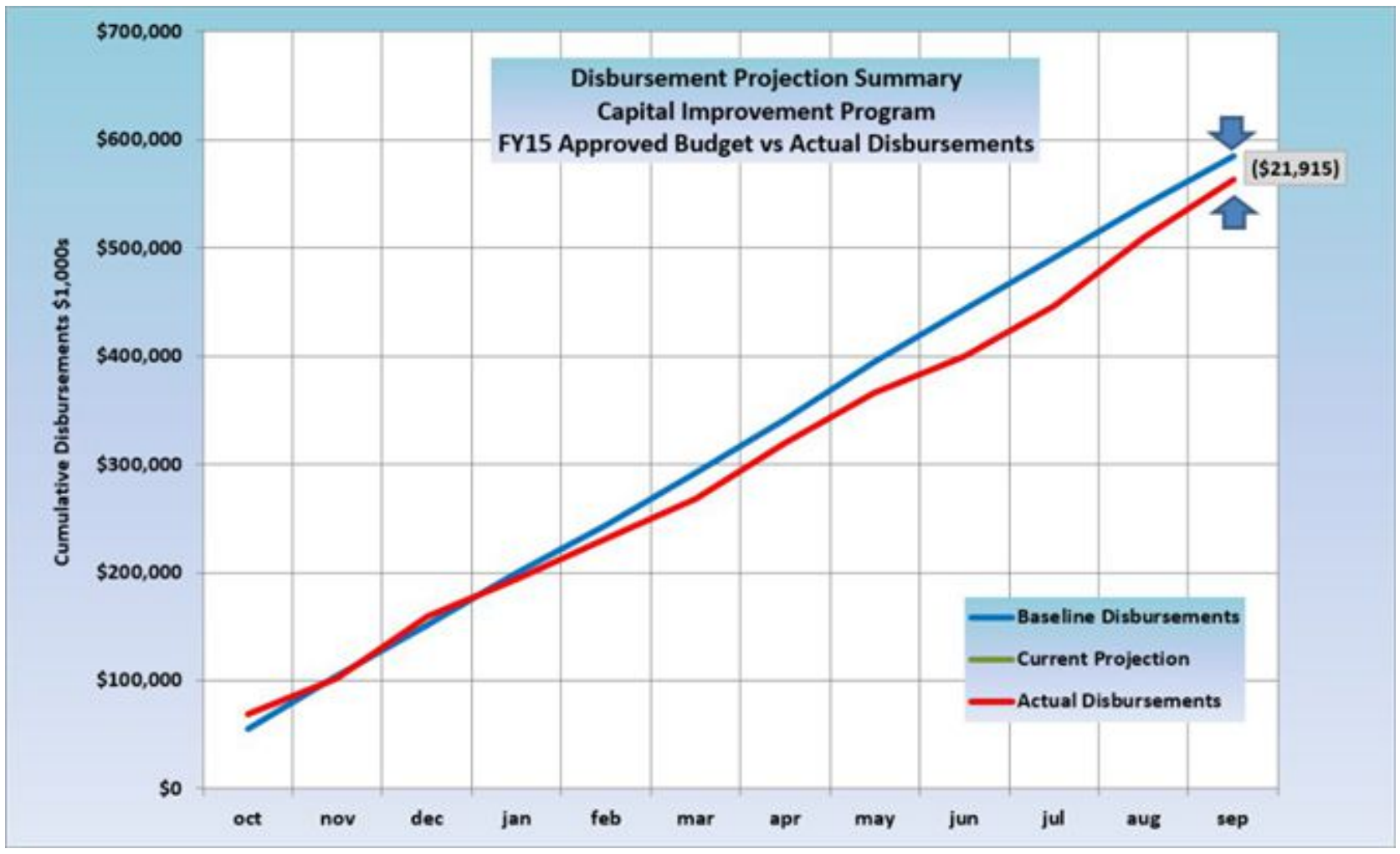
George S. Hawkins, General Manager
Leonard R. Benson, Chief Engineer

November 2015

Capital Improvement Program Report
4th Quarter FY2015

CIP Disbursement Performance

FY15 actual program disbursements compared with the FY15 projected disbursements are shown in the chart below:



Fiscal year 2015 CIP disbursements are $563,267,000, which is 3.7% below the baseline disbursement projection of $585,182,000.

Achieved disbursements within the service areas are as follows:

Wastewater Treatment Service Area
Baseline Disbursements $206,259,000
Actual Disbursements $208,883,000 ($2.6M above baseline projection)
Significant project variances are listed below:

- *Solids Processing Program Area – ($6.3M below baseline)*
  - The disbursements for Project XA – New Digestion Facilities are $6.4 million below baseline largely due to delayed release of retention for 2 of the 3 main construction contracts.

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Although DC Water has had beneficial use of the main project elements since the summer of 2015, there are outstanding contractual requirements that prevent release of retention. The majority of the retention will be released in FY2016.

- *Enhanced Nitrogen Removal Program Area – ($11.3M above baseline)*
  - The actual disbursements are $10.9 million below baseline for Project EE - Filtrate Treatment Facilities. This is a result of undocumented underground utilities encountered during site preparation, which delayed the mass excavation start by 2.5 months. In addition, slower than expected major process equipment submittal approval delayed the payment schedule for those items. It is anticipated the contract will be completed within budget.
  - Project EG - Blue Plains Tunnel proceeded under favorable mining conditions and was completed in midsummer 2015; the rate of subsequent disbursements was then reduced. In addition, a conservative approach to projection of retention underestimated disbursements, contributing to fiscal year end disbursements of $15.6 million above baseline projection.
  - Disbursements were $2.9 million above baseline on project BI - Enhanced Nitrogen Removal (ENR) North partly due to favorable construction progress and additional scope required during blower renovation.
  - Earlier than anticipated delivery and installation of the 13 foot diameter pump manifold to project FR - Tunnel Dewatering Pump Station, resulted in disbursements being $4.0 million above baseline projection.

CSO Service Area
Baseline Disbursements $271,100,000
Achieved Disbursements $249,014,000 ($22.1M below baseline projection)
Significant project variances are listed below:

- *Clean Rivers Program – ($24.1M below baseline)*
  - Disbursements in Project CY – Anacostia LTCP Projects were $22.9M below baseline partly due to the ground inflow incident at the Anacostia River Tunnel (ART) Inter Shaft Connecting Tunnel at the CSO 019 construction site; disbursements for this contract are expected to recover in the next fiscal year. DC Water is working with the Design/Builder for the ART to mitigate delays caused by the ground inflow incident. In addition, the First Street Tunnel (FST) Design/Builder was behind his baseline schedule, contributing to the lower disbursements. DC Water requested the FST Design/Builder to recover current schedule delays. DC Water is expected to meet all its consent decree milestones.

Stormwater Service Area
Baseline Disbursements $2,559,000
Achieved Disbursements $1,369,000 ($1.2M below baseline projection)
Significant project variances are listed below:

- Stormwater Trunk/Force Sewers
  - The emerging needs that Project BO – Future Stormwater Projects was created to fund did not materialize. As a result, disbursements were $1.4 million less than baseline projection.

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Sanitary Sewer Service Area
Baseline Disbursements $40,258,000
Achieved Disbursements $39,240,000 ($1.0M below baseline projection)
Significant project variances are listed below:

- *Sanitary Collection Sewers Program Area – ($5.3M below baseline)*
  - Disbursements are $2.2 million below baseline in Project G1 – Small Local Sewer Rehab 1 due to delayed construction procurement. This was a result of the development of the new Cured in Place Pipe specifications to better align level of quality with economic viability.

- *Sanitary On-Going Projects – ($8.4M above baseline)*
  - Disbursements for project D6 – FY2014 DSS Sanitary Sewer Projects and DI – FY2015 Sanitary Sewer Projects were $5.3 million above baseline partly as a result of emergency repairs to the North East Boundary Tunnel following unauthorized construction of an apartment building over the sewer.

- *Sanitary Interceptor/Trunk/ Force Sewers – ($1.3M Below Baseline)*
  - Preliminary inspection in Project IN – Upper East Side Trunk Sewer Rehabilitation revealed less debris than anticipated and therefore, the cost for full cleaning and inspection was greatly reduced. As a result, disbursements are $1.3 million below baseline.

- *Sanitary Sewer Program Management – ($2.9M Below Baseline)*
  - Disbursements for Project DN – Sewer Inspection Program are $1.9M below baseline projections generally due to moving funds from FY15 into FY16 in order to procure an unusually large heavy cleaning and inspection contract for the Upper Potomac Interceptor Relief Sewer in order to respond to an emerging need.

Water Service Area
Baseline Disbursements $65,006,000
Achieved Disbursements $64,761,000 ($0.25M below baseline projection)
Significant project variance listed below:

- *Water Storage Facility Program Area – ($2.5M below baseline)*
  - Disbursements are $1.7 million below baseline projections in Project FA – Water Storage Facility Upgrades due to construction delays caused by permitting and other construction issues.

- *Water On-Going Projects – ($2.6M above baseline)*
  - Disbursements for project D5 – FY2014 DWS Water Projects and DG – FY2015 DWS Water Projects are $2.0 million above baseline largely due to an increased number of water main repairs.

Capital Improvement Program Report
4th Quarter FY2015

Priority 1 Projects (Court Ordered, Stipulated Agreements, etc)

All priority 1 projects are on schedule and within budget.

Large Contract Actions Anticipated – 6 Month Look-Ahead

Project MA – Saint Elizabeth's Water Tank
Construction Contract ($15M - $20M), WQ&WS Mar, BOD Apr

Project CY – Div U - Advance Utility Relocations for NEBT
Construction Contract ($15M - $20M), WQ&WS Mar, BOD Apr

Project DR – Low Area Trunk Sewer - Rehabilitation
Construction Contract ($10M - $15M), EQ&SS Dec, BOD Jan

Project O3 – Small Diameter Watermain Rehab 11b
Construction Contract ($5M - $10M), EQ&SS Dec, BOD Jan

Project IL – Creekbed Sewer Rehabilitation – Oregon Avenue
Construction Contract ($10M - $15M), EQ&SS Mar, BOD Apr

Capital Improvement Program Report
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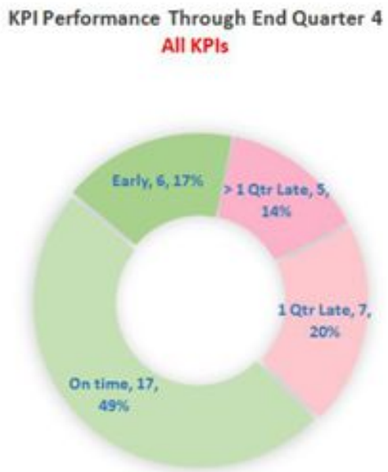
Schedule - Key Performance Indicators, Capital Improvement Program



For the 4th Quarter, one of the Key Performance Indicators (KPIs) was achieved early in the third quarter and six were achieved on time; five of the remaining planned KPIs were not achieved, as follows:

1. The construction start milestones for Large Valve Replacement 12 due to late design changes, St. Elizabeth Water Tank due to a protracted permitting process, and Small Diameter Watermain Replacement 11a, due to extended bid period.
2. The construction substantial completion for Potomac Sewer - Odor Remedy, due to changes to filter media to enhance odor removal performance.
3. The design start milestone for the Soldier's Home Reservoir Upgrade was rescheduled after further review and coordination required by the Armed Forces Retirement Home.

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FY2015 - KPI Report

DS	Design Start
CS	Construction Start
CSC	Construction Substantial Completion
CO/PC	Consent Oder/Permit Compliance

Planned		On time	
Early		1 Quarter Late	
		> 1 Quarter Late	

				QUARTER				
Qtr.	Project	Job Name	KPI Name	1	2	3	4	To Date
1	FY01	Rehab Upper Part of Rock Creek Main Interceptor	DS					On time
1	IF02	Sanitary Sewer Rehab and Repair Phase 6	DS					On time
1	FA04	Ft. Stanton Reservoir No. 1 Upgrade	CS					On time
1	FA06	Brentwood Reservoir Upgrade	CS					On time
1	FS01	Div D - JBAB Overflow and Diversion Structures	CS					On time
1	XA08	Biosolids Main Process Train (MPT)	CSC					1 Qtr Late
1	XA10	Biosolids Combined Heat and Power (CHP)	CSC					> 1 Qtr Late
1	XA12	Biosolids Final Dewatering	CSC					> 1 Qtr Late
1	XA12	Biosolids Final Dewatering	CSC					> 1 Qtr Late

Capital Improvement Program Report
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FY2015 - KPI Report

DS	Design Start
CS	Construction Start
CSC	Construction Substantial Completion
CO/PC	Consent Oder/Permit Compliance

Planned		On time	
Early		1 Quarter Late	
		> 1 Quarter Late	

				QUARTER				
Qtr.	Project	Job Name	KPI Name	1	2	3	4	To Date
2	E901	Nitrogen Removal Facilities - Contract 2	PC					Early
2	DE01	Small Diameter Water Main Repl 12A	DS					On time
2	DS01	New Headquarters Building	DS					On time
2	IL07	Creekbed Sewer Rehabilitation Bingham Drive	DS					Early
2	CY21	Div Z - Poplar Point Pumping Sta. Replacement	CS					On time
2	O202	Small Dia Watermain Repl 10b	CS					Early
2	CY04	Div E - CSO 015-017 Structures/Diversions	CSC					Early

Capital Improvement Program Report
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FY2015 - KPI Report

DS	Design Start
CS	Construction Start
CSC	Construction Substantial Completion
CO/PC	Consent Oder/Permit Compliance

Planned		On time	
Early		1 Quarter Late	
		> 1 Quarter Late	

				QUARTER				
Qtr.	Project	Job Name	KPI Name	1	2	3	4	To Date
3	F603	Steel Water Mains Contract 3	DS					> 1 Qtr Late
3	G100	Lining & Repair of Local Sewers	CS					On time
3	GA01	Small Local Sewer Rehab 4	CS					On time
3	J306	National Arboretum Sewer Rehab	CS					> 1 Qtr Late
3	Q302	Pope Branch Stream Restoration	CS					1 Qtr Late
3	BZ03	Large Valve Replacements 10	CSC					Early
3	O001	Small Dia Watermain Rehab 8-1	CSC					On time

Capital Improvement Program Report
4th Quarter FY2015

FY2015 - KPI Report

DS	Design Start
CS	Construction Start
CSC	Construction Substantial Completion
CO/PC	Consent Oder/Permit Compliance

Planned		On time	
Early		1 Quarter Late	
		> 1 Quarter Late	

				QUARTER				
Qtr.	Project	Job Name	KPI Name	1	2	3	4	To Date
4	BP01	Grit Chamber Facilities Phase II	DS					Early
4	BQ01	Primary Treatment Facilities Ph II	DS					On time
4	DE02	Small Diameter Water Main Repl 12B	DS					On time
4	FA03	Soldiers Home Reservoir Upgrade	DS					1 Qtr Late
4	I802	Large Valve Replacements 12	CS					1 Qtr Late
4	I803	Large Valve Replacements 13	CS					On time
4	MA01	St. Elizabeth Water Tank	CS					1 Qtr Late
4	O301	Small Dia Watermain Repl 11a	CS					1 Qtr Late
4	E901	Nitrogen Removal Facilities - Contract 2	CSC					On time
4	FA02	Ft. Reno Reservoir No. 1 Upgrade	CSC					On time
4	FH01	Discharge Piping Bryant Street Pump Station	CSC					On time
4	N712	Potomac Sewer - Odor Remedy (VA Sites)	CSC					1 Qtr Late